

# FIGURE 1

Amino acid sequence for full-length human wild type DPPIV [SEQ ID NO: 1]

(Residues 39-766 are underlined)

MKTPWKVLLG	LLGAAALVTI	ITVPVVLNKK	GTDDATADSR	<u>KTYTLTDYLK</u>	<u>NTYRLKLYSL</u>	60
RWISDHEYLY	KQENNILVFN	AEYGNSSVFL	ENSTFDEFGH	SINDYSISPD	QGFILLEINY	120
VKQWRHSYTA	SYDIYDLNKR	QLITEERIPN	NTQWVTWSPV	GKHLAYVWNN	DIYVKIEPNL	180
PSYRITWTGK	EDLIYNGITD	WVYEEVFSA	YSALWSPNG	TFLAYAQFND	TEVPLIEYSF	240
YSDSLQYPK	TVRVPPKAG	AVNPTVKFFV	VNTDSLSSVT	NATSIQITAP	ASMLIGDHYL	300
CDVTWATQER	ISLQWLRRIQ	NYSVMDICDY	DESSGRWNCL	VARQHIEMST	TGQVGRFRPS	360
EPHFTLDGNS	FYKIISNEEG	YRHICYFQID	KKDCFTFITKG	TWEVIGIEAL	TSDYLYYISN	420
EYKGMPPGGRN	LYKIQLSDYT	KVTCLSCELN	PERCQYYSVS	FSKEAKYYQL	RCSGPGPLPLY	480
TLHSSVNDKG	LRVLEDNSAL	DKMLQNVQMP	SKKLDFIILN	ETKFWYQMIL	PPHFDKSKKY	540
PLLLDVYAGP	CSQKADTVFR	LNWATYLAST	ENIIVASFDG	RSGGYQGDKI	MHAINRRLGT	600
FEVEDQIEAA	RQFSKMGFVD	NKRIAIWGS	YGGYVTSMLV	GSGSGVFKCG	IAPVPSRWE	660
YYDSVYTERY	MGLPTPEDNL	DHYRNSTVMS	RAENFKQVEY	LLIHGTADDN	VHFQQAQIS	720
KALVDVGVDF	QAMWYTDDEH	GIASSTAHHQ	IYTHMSHFIL	QCFSLP		766

Amino acid sequence for residues 39-766 of DPPIV with a

N-terminal 6x-histidine tag [SEQ ID NO: 3]

(part of a gp67 signal sequence and a 6x-histidine tag is underlined)

<u>ADPGGSHHHH</u>	<u>HHSRKTYTLT</u>	<u>DYLNKTYRLK</u>	<u>LYSLRWISDH</u>	<u>EYLYKQENNI</u>	<u>LVFNABYGNS</u>	60
SVFLENSTFD	EFGHSINDYS	ISPDGQFILL	EYNYVKQWRH	SYTASYDIYD	LNKRQLITEE	120
RIPNNTQWVT	WSPVGHKLAY	VWNNDIYVKI	EPNLPSYRIT	WTGKEDIYN	GITDWVYEEE	180
VFSAYSALWW	SPNGTFLAYA	QFNDETEVPLI	EYSFYSDSL	QYPKTVRVPY	PKAGAVNPTV	240
KFFVNVNTDSL	SSVTNATSIQ	ITAPASMLIG	DHYLCQVTWA	TQERISLQWL	RRIQNYSVMD	300
ICDYDESSGR	WNCLVARQHI	EMSTTGWVGR	FRPSEPHTL	DGNSFYKIIIS	NEEGYRHICY	360
FQIDKKDCTF	ITKGTWEVIG	IEALTSDYLY	YISNEYKGMP	GGRNLYKIQL	SDYTKVTCLS	420
CELNPERCQY	YSVSFSKEAK	YYQLRCSGPG	LPLYTLHSSV	NDKGLRVLED	NSALDKMLQN	480
VQMPSSKKLDF	IILNETKFWY	QMILPPHFDK	SKKYPLLLDV	YAGPCSQKAD	TVFRLNWATY	540
LASTENIIVA	SFDGRGSGYQ	GDKIMHAINR	RLGTFEVEDQ	IEAARQFSKM	GFVDNKRIAI	600
WGWSYGGYVT	SMVLGSGSGV	FKCGIAPV	SRWEYDVS	TERYMGLPTP	EDNLDHYRNS	660
TVMSRAENFK	QVEYLLIHGT	ADDNVHFQQS	AQISKALVDV	GVDFQAMWYT	DEDHGIASST	720
AHQHIYTHMS	HFILKQCFSLP					740

FIGURE 1 A

Human cDNA sequence encoding residues 39-766 of DPPIV [SEQ ID NO: 3]

AGTCGCAAAA	CTTACACTCT	AACTGATTAC	TTAAAAAATA	CTTATAGACT	GAAATTATAC	60
TCCTTAAGAT	GGATTTTCAGA	TCATGAATAT	CTCTACAAAC	AAGAAAATAA	TATCTTGGTA	120
TTCAATGCTG	AATATGGAAA	CAGCTCAGTT	TTCTTGGAGA	ACAGTACATT	TGATGAGTTT	180
GGACATTCTA	TCAATGATTA	TTCAATATCT	CCTGATGGGC	AGTTTATTCT	CTTAGAATAC	240
AACTACGTGA	AGCAATGGAG	GCATTCCTAC	ACAGCTTCAT	ATGACATTTA	TGATTTAAAT	300
AAAAGGCAGC	TGATTACAGA	AGAGAGGATT	CCAAACAACA	CACAGTGGGT	CACATGGTCA	360
CCAGTGGGTC	ATAAATTGGC	ATATGTTTGG	AACAATGACA	TTTATGTTAA	AATTGAACCA	420
AATTTACCAA	GTTACAGAAT	CACATGGACG	GGGAAAGAAG	ATATAATATA	TAATGGAATA	480
ACTGACTGGG	TTTATGAAGA	GGAGTCTTC	AGTGCCTACT	CTGCTCTGTG	GTGGTCTCCA	540
AACGGCACTT	TTTTAGCATA	TGCCCCAATT	AACGACACAG	AAGTCCCCT	TATTGAATAC	600
TCCTTCTACT	CTGATGAGTC	ACTGCAGTAC	CCAAAGACTG	TACGGGTTCC	ATATCCAAAG	660
GCAGGAGCTG	TGAATCCAAC	TGTAAAGTTC	TTTGTGTGTA	ATACAGACTC	TCTCAGCTCA	720
GTCACCAATG	CAACTTCCAT	ACAAATCACT	GCTCCTGCTT	CTATGTTGAT	AGGGGATCAC	780
TACTTGTGTG	ATGTGACATG	GGCAACACAA	GAAAGAAATT	CTTTGCAGTG	GCTCAGGAGG	840
ATTCAGAACT	ATTCGGTCAT	GGATATTTGT	GACTATGATG	AATCCAGTGG	AAGATGGAAC	900
TGCTTAGTGG	CACGGCAACA	CATTGAAATG	AGTACTACTG	GCTGGGTTGG	AAGATTTAGG	960
CCTTCAGAAC	CTCATTTTAC	CCTTGATGGT	AATAGCTTCT	ACAAGATCAT	CAGCAATGAA	1020
GAAGGTTACA	GACACATTTG	CTATTTCCAA	ATAGATAAAA	AAGACTGCAC	ATTTATTACA	1080
AAAGGCACCT	GGGAAGTCAT	CGGGATAGAA	GCTCTAACCA	GTGATTATCT	ATACTACATT	1140
AGTAATGAAT	ATAAAGGAAT	GCCAGGAGGA	AGGAATCTTT	ATAAAATCCA	ACTTATTGAC	1200
TATACAAAAG	TGACATGCCT	CAGTTGTGAG	CTGAATCCGG	AAAGGTGTCA	GTACTATTCT	1260
GTGTCAATTCA	GTAAAGAGGC	GAAGTATTAT	CAGCTGAGAT	GTTCCGGTCC	TGGTCTGCCC	1320
CTCTATACTC	TACACAGCAG	CGTGAATGAT	AAAGGGCTGA	GAGTCCTGGA	AGACAATTCA	1380
GCTTTGGATA	AAATGCTGCA	GAATGTCCAG	ATGCCCTCCA	AAAACTGGA	CTTCATTATT	1440
TTGAATGAAA	CAAAATTTTG	GTATCAGATG	ATCTTGCCCT	CTCATTTTGA	TAAATCCAAG	1500
AAATATCCTC	TACTATTAGA	TGTGTATGCA	GGCCCATGTA	GTCAAAAAGC	AGACACTGTC	1560
TTCAGACTGA	ACTGGGCCAC	TTACCTTGCA	AGCACAGAAA	ACATTATAGT	AGCTAGCTTT	1620
GATGGCAGAG	GAAGTGGTTA	CCAAGGAGAT	AAGATCATGC	ATGCAATCAA	CAGAAGACTG	1680
GGAACATTTG	AAGTTGAAGA	TCAAATTGAA	GCAGCCAGAC	AATTTTCAAA	AATGGGATTT	1740
GTGGACAACA	AACGAATTGC	AATTTGGGGC	TGGTCATATG	GAGGGTACGT	AACCTCAATG	1800
GTCCTGGGAT	CGGGAAGTGG	CGTGTTCAAG	TGTGGAATAG	CCGTGGCGCC	TGTATCCCGG	1860
TGGGAGTACT	ATGACTCAGT	GTACACAGAA	CGTTACATGG	GTCTCCCAAC	TCCAGAAGAC	1920
AACCTTGACC	ATTACAGAAA	TTCAACAGTC	ATGAGCAGAG	CTGAAAATTT	TAAACAAGTT	1980
GAGTACCTCC	TTATTTCATGG	AACAGCAGAT	GATAACGTTT	ACTTTCAGCA	GTCAGCTCAG	2040
ATCTCCAAAG	CCCTGGTCGA	TGTTGGAGTG	GATTTCCAGG	CAATGTGGTA	TACTGATGAA	2100
GACCATGGAA	TAGCTAGCAG	CACAGCACAC	CAACATATAT	ATACCCACAT	GAGCCACTTC	2160
ATAAAACAAT	GTTTCTCTTT	ACCT				2184

# FIGURE 3

## LEGEND

Column headings from left to right are (A)'Atom Number', (B)'Atom Type', (C)'Amino Acid', (D)'Chain Identifier', (E)'Amino Acid Number' (reference to SEQ ID NO: 3), (F)'X Coordinate', (G)'Y Coordinate', (H)'Z Coordinate', (I)'Occupancy' (OCC) and (J)'B factor'.

A	B	C	D	E	F	G	H	I	J
1	N	ARG	A	14	-78.499	25.732	64.898	1.00	51.08
2	CA	ARG	A	14	-77.682	24.936	63.934	1.00	50.91
3	CB	ARG	A	14	-76.853	25.895	63.064	1.00	51.59
4	CG	ARG	A	14	-76.507	25.382	61.666	1.00	54.33
5	CD	ARG	A	14	-76.170	26.503	60.678	1.00	58.00
6	NE	ARG	A	14	-76.489	26.159	59.292	1.00	61.47
7	CZ	ARG	A	14	-76.158	26.909	58.245	1.00	62.24
8	NH1	ARG	A	14	-75.492	28.043	58.429	1.00	61.77
9	NH2	ARG	A	14	-76.486	26.525	57.016	1.00	62.51
10	C	ARG	A	14	-76.763	23.943	64.655	1.00	49.68
11	O	ARG	A	14	-75.871	23.360	64.038	1.00	49.98
12	N	LYS	A	15	-76.986	23.740	65.952	1.00	47.84
13	CA	LYS	A	15	-76.091	22.892	66.731	1.00	46.49
14	CB	LYS	A	15	-75.983	23.350	68.181	1.00	46.98
15	CG	LYS	A	15	-77.288	23.731	68.859	1.00	49.99
16	CD	LYS	A	15	-77.002	24.390	70.224	1.00	53.43
17	CE	LYS	A	15	-78.085	25.406	70.605	1.00	55.57
18	NZ	LYS	A	15	-77.642	26.378	71.671	1.00	57.35
19	C	LYS	A	15	-76.358	21.398	66.670	1.00	44.72
20	O	LYS	A	15	-77.487	20.943	66.476	1.00	44.71
21	N	THR	A	16	-75.279	20.641	66.812	1.00	42.33
22	CA	THR	A	16	-75.363	19.201	66.815	1.00	39.34
23	CB	THR	A	16	-74.225	18.582	66.009	1.00	39.46
24	OG1	THR	A	16	-72.972	18.975	66.565	1.00	38.25
25	CG2	THR	A	16	-74.187	19.163	64.603	1.00	38.11
26	C	THR	A	16	-75.295	18.761	68.251	1.00	37.67
27	O	THR	A	16	-75.098	19.578	69.150	1.00	37.00
28	N	TYR	A	17	-75.534	17.476	68.466	1.00	35.46
29	CA	TYR	A	17	-75.439	16.896	69.785	1.00	33.88
30	CB	TYR	A	17	-76.340	15.666	69.865	1.00	33.82
31	CG	TYR	A	17	-76.311	14.944	71.179	1.00	32.28
32	CD1	TYR	A	17	-77.203	15.265	72.191	1.00	32.55
33	CE1	TYR	A	17	-77.170	14.603	73.411	1.00	32.32
34	CZ	TYR	A	17	-76.248	13.588	73.600	1.00	31.27
35	OH	TYR	A	17	-76.199	12.905	74.782	1.00	29.92
36	CE2	TYR	A	17	-75.366	13.257	72.606	1.00	30.87
37	CD2	TYR	A	17	-75.395	13.936	71.406	1.00	30.90
38	C	TYR	A	17	-73.971	16.526	69.924	1.00	32.90
39	O	TYR	A	17	-73.501	15.626	69.247	1.00	32.98
40	N	THR	A	18	-73.247	17.244	70.776	1.00	31.58
41	CA	THR	A	18	-71.792	17.060	70.901	1.00	30.40

**REPLACEMENT SHEET**  
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**FIGURE 3A**

A	B	C	D	E	F	G	H	I	J
42	CB	THR	A	18	-71.126	18.369	71.311	1.00	29.92
43	OG1	THR	A	18	-71.551	18.690	72.644	1.00	29.95
44	CG2	THR	A	18	-71.606	19.526	70.444	1.00	30.35
45	C	THR	A	18	-71.353	16.053	71.937	1.00	29.51
46	O	THR	A	18	-72.131	15.625	72.782	1.00	28.96
47	N	LEU	A	19	-70.064	15.739	71.895	1.00	29.18
48	CA	LEU	A	19	-69.454	14.841	72.858	1.00	29.40
49	CB	LEU	A	19	-67.958	14.681	72.570	1.00	29.30
50	CG	LEU	A	19	-67.186	13.725	73.475	1.00	29.28
51	CD1	LEU	A	19	-67.668	12.278	73.289	1.00	26.89
52	CD2	LEU	A	19	-65.706	13.844	73.171	1.00	29.54
53	C	LEU	A	19	-69.668	15.422	74.247	1.00	29.40
54	O	LEU	A	19	-70.014	14.702	75.174	1.00	29.52
55	N	THR	A	20	-69.483	16.731	74.375	1.00	29.38
56	CA	THR	A	20	-69.674	17.419	75.650	1.00	29.71
57	CB	THR	A	20	-69.270	18.921	75.530	1.00	30.55
58	OG1	THR	A	20	-67.858	19.022	75.275	1.00	31.86
59	CG2	THR	A	20	-69.426	19.646	76.871	1.00	29.63
60	C	THR	A	20	-71.095	17.286	76.152	1.00	29.39
61	O	THR	A	20	-71.311	17.062	77.336	1.00	29.75
62	N	ASP	A	21	-72.070	17.413	75.255	1.00	29.23
63	CA	ASP	A	21	-73.467	17.237	75.640	1.00	28.50
64	CB	ASP	A	21	-74.381	17.347	74.420	1.00	28.92
65	CG	ASP	A	21	-74.390	18.740	73.824	1.00	30.30
66	OD1	ASP	A	21	-74.348	19.699	74.612	1.00	30.33
67	OD2	ASP	A	21	-74.419	18.969	72.588	1.00	31.62
68	C	ASP	A	21	-73.635	15.871	76.288	1.00	28.19
69	O	ASP	A	21	-74.255	15.737	77.363	1.00	27.07
70	N	TYR	A	22	-73.067	14.854	75.635	1.00	28.18
71	CA	TYR	A	22	-73.110	13.498	76.162	1.00	28.06
72	CB	TYR	A	22	-72.478	12.503	75.180	1.00	28.13
73	CG	TYR	A	22	-72.316	11.105	75.757	1.00	28.21
74	CD1	TYR	A	22	-73.381	10.473	76.387	1.00	27.52
75	CE1	TYR	A	22	-73.231	9.225	76.941	1.00	31.17
76	CZ	TYR	A	22	-71.994	8.574	76.850	1.00	31.00
77	OH	TYR	A	22	-71.855	7.320	77.396	1.00	33.09
78	CE2	TYR	A	22	-70.920	9.184	76.231	1.00	27.37
79	CD2	TYR	A	22	-71.086	10.444	75.703	1.00	27.39
80	C	TYR	A	22	-72.400	13.430	77.507	1.00	28.37
81	O	TYR	A	22	-72.966	12.974	78.504	1.00	28.20
82	N	LEU	A	23	-71.160	13.894	77.544	1.00	29.10
83	CA	LEU	A	23	-70.363	13.783	78.766	1.00	29.84
84	CB	LEU	A	23	-68.895	14.060	78.490	1.00	29.67
85	CG	LEU	A	23	-68.233	13.147	77.454	1.00	30.09
86	CD1	LEU	A	23	-66.745	13.421	77.442	1.00	27.93
87	CD2	LEU	A	23	-68.502	11.647	77.730	1.00	29.29
88	C	LEU	A	23	-70.846	14.639	79.919	1.00	30.85
89	O	LEU	A	23	-70.704	14.254	81.081	1.00	31.02
90	N	LYS	A	24	-71.417	15.798	79.613	1.00	31.74
91	CA	LYS	A	24	-71.909	16.658	80.669	1.00	33.11
92	CB	LYS	A	24	-71.501	18.129	80.433	1.00	33.11



**REPLACEMENT SHEET**  
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**FIGURE 3B**

A	B	C	D	E	F	G	H	I	J
93	CG	LYS	A	24	-69.997	18.373	80.362	1.00	31.71
94	CD	LYS	A	24	-69.297	17.906	81.648	1.00	32.14
95	CE	LYS	A	24	-67.820	18.355	81.702	1.00	32.14
96	NZ	LYS	A	24	-67.002	17.666	82.769	1.00	29.53
97	C	LYS	A	24	-73.426	16.521	80.864	1.00	34.49
98	O	LYS	A	24	-73.998	17.135	81.752	1.00	34.44
99	N	ASN	A	25	-74.082	15.701	80.048	1.00	36.12
100	CA	ASN	A	25	-75.517	15.506	80.214	1.00	37.50
101	CB	ASN	A	25	-75.813	14.898	81.583	1.00	38.04
102	CG	ASN	A	25	-75.397	13.437	81.686	1.00	42.36
103	OD1	ASN	A	25	-75.195	12.919	82.793	1.00	46.50
104	ND2	ASN	A	25	-75.285	12.753	80.534	1.00	46.18
105	C	ASN	A	25	-76.312	16.808	80.032	1.00	37.71
106	O	ASN	A	25	-77.122	17.187	80.870	1.00	37.63
107	N	THR	A	26	-76.066	17.493	78.926	1.00	38.29
108	CA	THR	A	26	-76.761	18.725	78.622	1.00	38.88
109	CB	THR	A	26	-76.259	19.227	77.281	1.00	39.01
110	OG1	THR	A	26	-74.854	19.444	77.377	1.00	39.58
111	CG2	THR	A	26	-76.817	20.607	76.955	1.00	39.02
112	C	THR	A	26	-78.271	18.476	78.551	1.00	39.19
113	O	THR	A	26	-79.066	19.157	79.198	1.00	39.04
114	N	TYR	A	27	-78.637	17.482	77.754	1.00	39.58
115	CA	TYR	A	27	-80.017	17.110	77.518	1.00	39.93
116	CB	TYR	A	27	-80.169	16.771	76.044	1.00	39.52
117	CG	TYR	A	27	-79.698	17.921	75.211	1.00	38.77
118	CD1	TYR	A	27	-80.438	19.087	75.151	1.00	39.35
119	CE1	TYR	A	27	-80.006	20.166	74.431	1.00	39.27
120	CZ	TYR	A	27	-78.817	20.093	73.765	1.00	38.78
121	OH	TYR	A	27	-78.400	21.180	73.049	1.00	38.94
122	CE2	TYR	A	27	-78.051	18.947	73.817	1.00	38.83
123	CD2	TYR	A	27	-78.488	17.878	74.549	1.00	38.20
124	C	TYR	A	27	-80.398	15.926	78.368	1.00	40.73
125	O	TYR	A	27	-80.207	14.793	77.969	1.00	41.03
126	N	ARG	A	28	-80.940	16.177	79.546	1.00	42.07
127	CA	ARG	A	28	-81.271	15.065	80.420	1.00	43.55
128	CB	ARG	A	28	-81.423	15.521	81.873	1.00	44.02
129	CG	ARG	A	28	-80.996	14.454	82.878	1.00	47.22
130	CD	ARG	A	28	-81.354	14.734	84.340	1.00	51.56
131	NE	ARG	A	28	-82.668	14.202	84.699	1.00	55.65
132	CZ	ARG	A	28	-83.559	14.845	85.448	1.00	57.92
133	NH1	ARG	A	28	-83.291	16.050	85.930	1.00	58.60
134	NH2	ARG	A	28	-84.725	14.279	85.715	1.00	60.08
135	C	ARG	A	28	-82.534	14.355	79.951	1.00	43.77
136	O	ARG	A	28	-83.352	14.918	79.221	1.00	44.23
137	N	LEU	A	29	-82.669	13.097	80.338	1.00	43.66
138	CA	LEU	A	29	-83.883	12.376	80.054	1.00	43.77
139	CB	LEU	A	29	-83.602	10.950	79.602	1.00	43.85
140	CG	LEU	A	29	-83.293	10.758	78.121	1.00	44.26
141	CD1	LEU	A	29	-82.836	9.324	77.850	1.00	45.40
142	CD2	LEU	A	29	-84.505	11.088	77.282	1.00	45.47
143	C	LEU	A	29	-84.578	12.376	81.381	1.00	43.80

**REPLACEMENT SHEET**  
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**FIGURE 3C**

A	B	C	D	E	F	G	H	I	J
144	O	LEU	A	29	-83.983	12.028	82.397	1.00	43.27
145	N	LYS	A	30	-85.831	12.804	81.393	1.00	43.83
146	CA	LYS	A	30	-86.540	12.864	82.653	1.00	44.19
147	CB	LYS	A	30	-87.558	13.999	82.623	1.00	44.45
148	CG	LYS	A	30	-87.589	14.791	83.904	1.00	45.86
149	CD	LYS	A	30	-87.585	16.278	83.631	1.00	48.33
150	CE	LYS	A	30	-87.850	17.057	84.915	1.00	50.36
151	NZ	LYS	A	30	-87.184	16.414	86.093	1.00	50.63
152	C	LYS	A	30	-87.188	11.530	82.992	1.00	43.80
153	O	LYS	A	30	-87.671	10.828	82.119	1.00	43.69
154	N	LEU	A	31	-87.176	11.182	84.269	1.00	43.81
155	CA	LEU	A	31	-87.756	9.930	84.734	1.00	43.79
156	CB	LEU	A	31	-86.736	9.163	85.574	1.00	43.75
157	CG	LEU	A	31	-85.603	8.328	84.969	1.00	44.56
158	CD1	LEU	A	31	-84.873	9.055	83.846	1.00	43.44
159	CD2	LEU	A	31	-84.628	7.930	86.096	1.00	44.48
160	C	LEU	A	31	-88.977	10.156	85.617	1.00	43.68
161	O	LEU	A	31	-89.333	11.277	85.963	1.00	43.78
162	N	TYR	A	32	-89.615	9.065	85.996	1.00	43.53
163	CA	TYR	A	32	-90.674	9.138	86.968	1.00	43.23
164	CB	TYR	A	32	-92.052	9.303	86.338	1.00	43.05
165	CG	TYR	A	32	-93.048	9.809	87.349	1.00	42.24
166	CD1	TYR	A	32	-93.511	8.981	88.365	1.00	40.80
167	CE1	TYR	A	32	-94.404	9.431	89.295	1.00	40.31
168	CZ	TYR	A	32	-94.844	10.741	89.243	1.00	41.67
169	OH	TYR	A	32	-95.739	11.185	90.191	1.00	43.57
170	CE2	TYR	A	32	-94.393	11.593	88.260	1.00	41.02
171	CD2	TYR	A	32	-93.490	11.127	87.321	1.00	41.49
172	C	TYR	A	32	-90.607	7.874	87.767	1.00	43.22
173	O	TYR	A	32	-91.398	6.966	87.573	1.00	43.16
174	N	SER	A	33	-89.646	7.823	88.671	1.00	43.72
175	CA	SER	A	33	-89.442	6.642	89.486	1.00	44.29
176	CB	SER	A	33	-87.971	6.494	89.860	1.00	44.28
177	OG	SER	A	33	-87.829	5.415	90.769	1.00	45.94
178	C	SER	A	33	-90.255	6.707	90.749	1.00	44.40
179	O	SER	A	33	-90.016	7.558	91.591	1.00	44.77
180	N	LEU	A	34	-91.195	5.782	90.895	1.00	44.57
181	CA	LEU	A	34	-92.057	5.761	92.058	1.00	44.62
182	CB	LEU	A	34	-93.520	5.959	91.626	1.00	44.14
183	CG	LEU	A	34	-94.125	4.942	90.643	1.00	43.66
184	CD1	LEU	A	34	-94.404	3.595	91.314	1.00	40.76
185	CD2	LEU	A	34	-95.392	5.481	89.957	1.00	41.85
186	C	LEU	A	34	-91.893	4.444	92.788	1.00	45.36
187	O	LEU	A	34	-91.354	3.490	92.236	1.00	45.44
188	N	ARG	A	35	-92.332	4.398	94.038	1.00	46.33
189	CA	ARG	A	35	-92.342	3.152	94.780	1.00	48.23
190	CB	ARG	A	35	-91.397	3.171	95.983	1.00	48.19
191	CG	ARG	A	35	-90.088	3.873	95.758	1.00	50.55
192	CD	ARG	A	35	-89.158	3.812	96.952	1.00	52.14
193	NE	ARG	A	35	-87.815	4.235	96.585	1.00	54.13
194	CZ	ARG	A	35	-86.755	4.134	97.378	1.00	53.95

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**FIGURE 3D**

A	B	C	D	E	F	G	H	I	J
195	NH1	ARG	A	35	-86.886	3.625	98.600	1.00	51.85
196	NH2	ARG	A	35	-85.569	4.552	96.942	1.00	53.73
197	C	ARG	A	35	-93.743	3.011	95.297	1.00	48.75
198	O	ARG	A	35	-94.246	3.909	95.958	1.00	49.28
199	N	TRP	A	36	-94.381	1.891	95.009	1.00	49.62
200	CA	TRP	A	36	-95.722	1.688	95.504	1.00	50.47
201	CB	TRP	A	36	-96.409	0.550	94.751	1.00	50.15
202	CG	TRP	A	36	-96.845	0.918	93.357	1.00	49.57
203	CD1	TRP	A	36	-96.282	0.500	92.191	1.00	48.94
204	NE1	TRP	A	36	-96.956	1.033	91.120	1.00	48.90
205	CE2	TRP	A	36	-97.985	1.813	91.581	1.00	48.49
206	CD2	TRP	A	36	-97.945	1.765	92.987	1.00	48.80
207	CE3	TRP	A	36	-98.902	2.490	93.704	1.00	48.56
208	CZ3	TRP	A	36	-99.857	3.220	93.005	1.00	49.05
209	CH2	TRP	A	36	-99.867	3.246	91.607	1.00	47.62
210	CZ2	TRP	A	36	-98.940	2.553	90.879	1.00	48.27
211	C	TRP	A	36	-95.581	1.359	96.970	1.00	51.34
212	O	TRP	A	36	-94.558	0.821	97.388	1.00	51.46
213	N	ILE	A	37	-96.598	1.685	97.757	1.00	52.47
214	CA	ILE	A	37	-96.559	1.421	99.191	1.00	53.41
215	CB	ILE	A	37	-96.449	2.737	99.958	1.00	53.42
216	CG1	ILE	A	37	-94.987	3.025	100.270	1.00	53.87
217	CD1	ILE	A	37	-94.196	3.466	99.076	1.00	54.40
218	CG2	ILE	A	37	-97.246	2.685	101.244	1.00	54.45
219	C	ILE	A	37	-97.793	0.648	99.612	1.00	53.93
220	O	ILE	A	37	-97.812	-0.066	100.617	1.00	53.82
221	N	SER	A	38	-98.833	0.793	98.814	1.00	54.88
222	CA	SER	A	38	-100.072	0.103	99.078	1.00	55.80
223	CB	SER	A	38	-101.023	1.013	99.840	1.00	55.67
224	OG	SER	A	38	-100.863	2.357	99.413	1.00	56.45
225	C	SER	A	38	-100.650	-0.235	97.731	1.00	56.36
226	O	SER	A	38	-99.944	-0.241	96.726	1.00	56.35
227	N	ASP	A	39	-101.945	-0.488	97.696	1.00	57.13
228	CA	ASP	A	39	-102.560	-0.803	96.435	1.00	57.78
229	CB	ASP	A	39	-103.718	-1.766	96.627	1.00	58.12
230	CG	ASP	A	39	-103.988	-2.578	95.392	1.00	59.53
231	OD1	ASP	A	39	-105.111	-3.106	95.254	1.00	61.71
232	OD2	ASP	A	39	-103.127	-2.745	94.500	1.00	61.65
233	C	ASP	A	39	-103.046	0.452	95.753	1.00	57.97
234	O	ASP	A	39	-103.764	0.363	94.767	1.00	58.27
235	N	HIS	A	40	-102.660	1.620	96.261	1.00	58.00
236	CA	HIS	A	40	-103.128	2.865	95.654	1.00	58.81
237	CB	HIS	A	40	-104.625	3.072	95.920	1.00	59.47
238	CG	HIS	A	40	-105.071	2.575	97.257	1.00	61.31
239	ND1	HIS	A	40	-106.098	1.666	97.409	1.00	62.92
240	CE1	HIS	A	40	-106.264	1.405	98.694	1.00	63.69
241	NE2	HIS	A	40	-105.379	2.107	99.380	1.00	63.55
242	CD2	HIS	A	40	-104.618	2.845	98.504	1.00	62.40
243	C	HIS	A	40	-102.354	4.110	96.059	1.00	58.35
244	O	HIS	A	40	-102.744	5.229	95.720	1.00	58.06
245	N	GLU	A	41	-101.259	3.915	96.780	1.00	58.00

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**FIGURE 3E**

A	B	C	D	E	F	G	H	I	J
246	CA	GLU	A	41	-100.409	5.027	97.167	1.00	57.73
247	CB	GLU	A	41	-100.372	5.162	98.690	1.00	57.77
248	CG	GLU	A	41	-101.698	5.542	99.334	1.00	57.46
249	CD	GLU	A	41	-101.505	6.168	100.703	1.00	56.70
250	OE1	GLU	A	41	-101.106	5.438	101.644	1.00	56.35
251	OE2	GLU	A	41	-101.736	7.391	100.832	1.00	55.22
252	C	GLU	A	41	-99.002	4.787	96.645	1.00	57.49
253	O	GLU	A	41	-98.593	3.642	96.493	1.00	57.77
254	N	TYR	A	42	-98.256	5.849	96.370	1.00	57.25
255	CA	TYR	A	42	-96.869	5.669	95.954	1.00	57.17
256	CB	TYR	A	42	-96.776	5.319	94.471	1.00	56.71
257	CG	TYR	A	42	-97.027	6.456	93.510	1.00	54.55
258	CD1	TYR	A	42	-96.053	7.407	93.272	1.00	52.96
259	CE1	TYR	A	42	-96.254	8.430	92.382	1.00	51.65
260	CZ	TYR	A	42	-97.440	8.513	91.693	1.00	51.43
261	OH	TYR	A	42	-97.622	9.545	90.803	1.00	49.55
262	CE2	TYR	A	42	-98.427	7.572	91.897	1.00	52.02
263	CD2	TYR	A	42	-98.215	6.546	92.802	1.00	53.03
264	C	TYR	A	42	-95.948	6.837	96.294	1.00	57.82
265	O	TYR	A	42	-96.333	8.003	96.191	1.00	57.89
266	N	LEU	A	43	-94.723	6.510	96.688	1.00	58.48
267	CA	LEU	A	43	-93.746	7.526	97.049	1.00	59.28
268	CB	LEU	A	43	-92.773	6.996	98.103	1.00	59.23
269	CG	LEU	A	43	-93.436	6.643	99.433	1.00	58.97
270	CD1	LEU	A	43	-92.447	6.044	100.404	1.00	57.55
271	CD2	LEU	A	43	-94.111	7.874	100.016	1.00	58.52
272	C	LEU	A	43	-92.975	8.011	95.849	1.00	59.92
273	O	LEU	A	43	-92.592	7.230	94.989	1.00	60.06
274	N	TYR	A	44	-92.762	9.318	95.799	1.00	61.07
275	CA	TYR	A	44	-91.976	9.941	94.749	1.00	62.31
276	CB	TYR	A	44	-92.881	10.720	93.798	1.00	61.95
277	CG	TYR	A	44	-92.187	11.345	92.608	1.00	61.54
278	CD1	TYR	A	44	-91.690	10.561	91.569	1.00	61.21
279	CE1	TYR	A	44	-91.058	11.136	90.474	1.00	60.70
280	CZ	TYR	A	44	-90.923	12.508	90.414	1.00	61.23
281	OH	TYR	A	44	-90.301	13.098	89.336	1.00	61.42
282	CE2	TYR	A	44	-91.411	13.303	91.433	1.00	60.86
283	CD2	TYR	A	44	-92.038	12.722	92.516	1.00	61.00
284	C	TYR	A	44	-91.030	10.867	95.492	1.00	63.51
285	O	TYR	A	44	-91.299	11.226	96.634	1.00	63.78
286	N	LYS	A	45	-89.916	11.232	94.873	1.00	65.00
287	CA	LYS	A	45	-88.948	12.098	95.532	1.00	66.61
288	CB	LYS	A	45	-87.641	11.335	95.779	1.00	66.63
289	CG	LYS	A	45	-86.657	12.048	96.701	1.00	67.24
290	CD	LYS	A	45	-85.319	11.316	96.767	1.00	68.31
291	CE	LYS	A	45	-84.269	12.139	97.509	1.00	68.73
292	NZ	LYS	A	45	-84.810	12.690	98.791	1.00	69.48
293	C	LYS	A	45	-88.702	13.332	94.671	1.00	67.68
294	O	LYS	A	45	-88.234	13.207	93.540	1.00	67.83
295	N	GLN	A	46	-89.017	14.518	95.198	1.00	69.00
296	CA	GLN	A	46	-88.868	15.752	94.415	1.00	70.27

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**FIGURE 3F**

A	B	C	D	E	F	G	H	I	J
297	CB	GLN	A	46	-90.210	16.495	94.254	1.00	70.38
298	CG	GLN	A	46	-90.189	17.523	93.118	1.00	71.49
299	CD	GLN	A	46	-91.574	18.038	92.716	1.00	73.94
300	OE1	GLN	A	46	-92.566	17.300	92.755	1.00	74.29
301	NE2	GLN	A	46	-91.637	19.308	92.313	1.00	74.28
302	C	GLN	A	46	-87.771	16.710	94.891	1.00	70.79
303	O	GLN	A	46	-88.012	17.595	95.719	1.00	70.72
304	N	GLU	A	47	-86.569	16.518	94.344	1.00	71.70
305	CA	GLU	A	47	-85.413	17.393	94.580	1.00	72.37
306	CB	GLU	A	47	-85.480	18.608	93.644	1.00	72.68
307	CG	GLU	A	47	-85.040	18.336	92.211	1.00	73.91
308	CD	GLU	A	47	-83.561	18.604	91.986	1.00	75.82
309	OE1	GLU	A	47	-83.116	19.761	92.179	1.00	76.43
310	OE2	GLU	A	47	-82.840	17.657	91.612	1.00	76.92
311	C	GLU	A	47	-85.240	17.869	96.019	1.00	72.44
312	O	GLU	A	47	-84.595	18.894	96.268	1.00	72.64
313	N	ASN	A	48	-85.801	17.116	96.959	1.00	72.46
314	CA	ASN	A	48	-85.737	17.471	98.368	1.00	72.28
315	CB	ASN	A	48	-86.404	18.833	98.599	1.00	72.52
316	CG	ASN	A	48	-85.409	19.943	98.933	1.00	73.27
317	OD1	ASN	A	48	-84.235	19.690	99.213	1.00	74.24
318	ND2	ASN	A	48	-85.890	21.185	98.919	1.00	73.24
319	C	ASN	A	48	-86.443	16.444	99.243	1.00	72.00
320	O	ASN	A	48	-85.861	15.902	100.186	1.00	72.38
321	N	ASN	A	49	-87.695	16.158	98.902	1.00	71.24
322	CA	ASN	A	49	-88.567	15.415	99.796	1.00	70.45
323	CB	ASN	A	49	-89.521	16.417	100.442	1.00	70.52
324	CG	ASN	A	49	-90.018	17.461	99.449	1.00	70.98
325	OD1	ASN	A	49	-90.640	18.460	99.828	1.00	70.94
326	ND2	ASN	A	49	-89.742	17.233	98.166	1.00	70.86
327	C	ASN	A	49	-89.396	14.293	99.200	1.00	69.91
328	O	ASN	A	49	-89.781	14.321	98.028	1.00	70.04
329	N	ILE	A	50	-89.701	13.316	100.042	1.00	69.04
330	CA	ILE	A	50	-90.539	12.205	99.641	1.00	68.26
331	CB	ILE	A	50	-90.337	11.008	100.573	1.00	68.17
332	CG1	ILE	A	50	-88.957	10.390	100.357	1.00	68.29
333	CD1	ILE	A	50	-87.916	10.833	101.355	1.00	68.40
334	CG2	ILE	A	50	-91.408	9.974	100.328	1.00	68.21
335	C	ILE	A	50	-92.001	12.622	99.655	1.00	67.54
336	O	ILE	A	50	-92.544	12.984	100.696	1.00	67.50
337	N	LEU	A	51	-92.628	12.586	98.488	1.00	66.76
338	CA	LEU	A	51	-94.043	12.899	98.366	1.00	65.98
339	CB	LEU	A	51	-94.323	13.580	97.024	1.00	66.02
340	CG	LEU	A	51	-94.640	15.082	97.012	1.00	65.96
341	CD1	LEU	A	51	-93.931	15.820	98.139	1.00	65.12
342	CD2	LEU	A	51	-94.322	15.711	95.652	1.00	65.83
343	C	LEU	A	51	-94.859	11.621	98.471	1.00	65.39
344	O	LEU	A	51	-94.350	10.533	98.225	1.00	65.35
345	N	VAL	A	52	-96.119	11.748	98.869	1.00	64.69
346	CA	VAL	A	52	-97.026	10.608	98.869	1.00	63.91
347	CB	VAL	A	52	-97.772	10.450	100.184	1.00	64.07

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**FIGURE 3G**

A	B	C	D	E	F	G	H	I	J
348	CG1	VAL	A	52	-97.047	11.166	101.304	1.00	64.22
349	CG2	VAL	A	52	-98.002	8.966	100.488	1.00	63.60
350	C	VAL	A	52	-98.082	10.913	97.839	1.00	63.33
351	O	VAL	A	52	-98.626	12.013	97.823	1.00	63.43
352	N	PHE	A	53	-98.303	9.949	96.981	1.00	62.56
353	CA	PHE	A	53	-99.390	10.165	95.959	1.00	61.64
354	CB	PHE	A	53	-98.778	10.047	94.569	1.00	61.67
355	CG	PHE	A	53	-98.025	11.265	94.117	1.00	61.05
356	CD1	PHE	A	53	-96.751	11.523	94.586	1.00	61.29
357	CE1	PHE	A	53	-96.053	12.634	94.151	1.00	61.02
358	CZ	PHE	A	53	-96.625	13.495	93.236	1.00	60.95
359	CE2	PHE	A	53	-97.892	13.244	92.756	1.00	60.57
360	CD2	PHE	A	53	-98.580	12.130	93.192	1.00	60.71
361	C	PHE	A	53	-100.505	9.150	96.078	1.00	61.31
362	O	PHE	A	53	-100.254	7.965	96.304	1.00	61.35
363	N	ASN	A	54	-101.742	9.620	95.960	1.00	60.84
364	CA	ASN	A	54	-102.876	8.717	95.857	1.00	60.32
365	CB	ASN	A	54	-104.179	9.395	96.288	1.00	60.41
366	CG	ASN	A	54	-105.340	8.409	96.429	1.00	60.97
367	OD1	ASN	A	54	-106.103	8.477	97.390	1.00	61.46
368	ND2	ASN	A	54	-105.477	7.493	95.470	1.00	60.70
369	C	ASN	A	54	-102.936	8.393	94.382	1.00	59.76
370	O	ASN	A	54	-102.896	9.295	93.543	1.00	59.60
371	N	ALA	A	55	-103.004	7.115	94.047	1.00	59.38
372	CA	ALA	A	55	-103.065	6.740	92.641	1.00	59.02
373	CB	ALA	A	55	-102.952	5.237	92.488	1.00	59.06
374	C	ALA	A	55	-104.322	7.276	91.937	1.00	58.71
375	O	ALA	A	55	-104.242	7.767	90.816	1.00	58.09
376	N	GLU	A	56	-105.473	7.195	92.598	1.00	58.94
377	CA	GLU	A	56	-106.736	7.646	91.991	1.00	59.29
378	CB	GLU	A	56	-107.930	7.354	92.906	1.00	59.17
379	CG	GLU	A	56	-108.493	5.948	92.791	1.00	59.64
380	CD	GLU	A	56	-109.508	5.794	91.670	1.00	59.62
381	OE1	GLU	A	56	-109.458	6.558	90.681	1.00	59.64
382	OE2	GLU	A	56	-110.371	4.904	91.782	1.00	59.77
383	C	GLU	A	56	-106.787	9.115	91.563	1.00	59.42
384	O	GLU	A	56	-107.172	9.421	90.434	1.00	59.29
385	N	TYR	A	57	-106.388	10.023	92.448	1.00	59.76
386	CA	TYR	A	57	-106.556	11.453	92.162	1.00	60.14
387	CB	TYR	A	57	-107.191	12.151	93.365	1.00	60.19
388	CG	TYR	A	57	-108.191	11.284	94.093	1.00	60.37
389	CD1	TYR	A	57	-109.455	11.059	93.565	1.00	60.93
390	CE1	TYR	A	57	-110.373	10.267	94.226	1.00	60.78
391	CZ	TYR	A	57	-110.030	9.676	95.425	1.00	60.79
392	OH	TYR	A	57	-110.941	8.877	96.072	1.00	60.43
393	CE2	TYR	A	57	-108.775	9.871	95.966	1.00	60.89
394	CD2	TYR	A	57	-107.865	10.677	95.299	1.00	60.70
395	C	TYR	A	57	-105.297	12.200	91.743	1.00	60.44
396	O	TYR	A	57	-105.382	13.286	91.170	1.00	60.16
397	N	GLY	A	58	-104.132	11.630	92.037	1.00	60.85
398	CA	GLY	A	58	-102.881	12.281	91.700	1.00	61.42

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**FIGURE 3H**

A	B	C	D	E	F	G	H	I	J
399	C	GLY	A	58	-102.555	13.377	92.690	1.00	61.93
400	O	GLY	A	58	-101.717	14.243	92.431	1.00	61.57
401	N	ASN	A	59	-103.239	13.348	93.829	1.00	62.68
402	CA	ASN	A	59	-102.990	14.341	94.863	1.00	63.62
403	CB	ASN	A	59	-104.259	14.646	95.659	1.00	63.34
404	CG	ASN	A	59	-104.818	13.429	96.334	1.00	63.30
405	OD1	ASN	A	59	-105.016	12.395	95.695	1.00	63.69
406	ND2	ASN	A	59	-105.068	13.531	97.637	1.00	62.78
407	C	ASN	A	59	-101.864	13.873	95.780	1.00	64.23
408	O	ASN	A	59	-101.847	12.729	96.236	1.00	64.24
409	N	SER	A	60	-100.918	14.764	96.038	1.00	65.01
410	CA	SER	A	60	-99.784	14.433	96.884	1.00	65.72
411	CB	SER	A	60	-98.506	14.431	96.057	1.00	65.53
412	OG	SER	A	60	-98.315	15.697	95.455	1.00	65.16
413	C	SER	A	60	-99.610	15.389	98.061	1.00	66.42
414	O	SER	A	60	-99.840	16.597	97.949	1.00	66.14
415	N	SER	A	61	-99.191	14.819	99.186	1.00	67.34
416	CA	SER	A	61	-98.905	15.568	100.397	1.00	68.04
417	CB	SER	A	61	-99.960	15.278	101.468	1.00	68.06
418	OG	SER	A	61	-99.954	13.909	101.847	1.00	66.79
419	C	SER	A	61	-97.538	15.109	100.878	1.00	68.90
420	O	SER	A	61	-97.251	13.912	100.892	1.00	68.87
421	N	VAL	A	62	-96.698	16.063	101.266	1.00	69.78
422	CA	VAL	A	62	-95.341	15.763	101.717	1.00	70.58
423	CB	VAL	A	62	-94.659	17.027	102.273	1.00	70.42
424	CG1	VAL	A	62	-93.293	16.697	102.833	1.00	70.70
425	CG2	VAL	A	62	-94.555	18.092	101.186	1.00	70.79
426	C	VAL	A	62	-95.307	14.638	102.757	1.00	71.13
427	O	VAL	A	62	-95.955	14.728	103.800	1.00	71.06
428	N	PHE	A	63	-94.556	13.578	102.460	1.00	71.86
429	CA	PHE	A	63	-94.441	12.438	103.370	1.00	72.69
430	CB	PHE	A	63	-94.274	11.133	102.597	1.00	72.66
431	CG	PHE	A	63	-94.030	9.946	103.481	1.00	73.06
432	CD1	PHE	A	63	-92.762	9.675	103.963	1.00	73.09
433	CE1	PHE	A	63	-92.538	8.597	104.789	1.00	73.04
434	CZ	PHE	A	63	-93.585	7.766	105.142	1.00	73.31
435	CE2	PHE	A	63	-94.854	8.023	104.670	1.00	73.34
436	CD2	PHE	A	63	-95.074	9.113	103.848	1.00	73.44
437	C	PHE	A	63	-93.258	12.583	104.312	1.00	73.13
438	O	PHE	A	63	-93.321	12.214	105.486	1.00	73.11
439	N	LEU	A	64	-92.161	13.083	103.764	1.00	73.76
440	CA	LEU	A	64	-90.956	13.295	104.530	1.00	74.42
441	CB	LEU	A	64	-90.051	12.073	104.452	1.00	74.35
442	CG	LEU	A	64	-88.873	12.070	105.425	1.00	74.56
443	CD1	LEU	A	64	-89.369	11.956	106.859	1.00	74.40
444	CD2	LEU	A	64	-87.905	10.945	105.099	1.00	74.72
445	C	LEU	A	64	-90.265	14.490	103.915	1.00	75.00
446	O	LEU	A	64	-89.856	14.449	102.755	1.00	75.07
447	N	GLU	A	65	-90.148	15.561	104.688	1.00	75.74
448	CA	GLU	A	65	-89.515	16.766	104.187	1.00	76.40
449	CB	GLU	A	65	-90.053	18.014	104.893	1.00	76.68

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**FIGURE 3I**

A	B	C	D	E	F	G	H	I	J
450	CG	GLU	A	65	-90.491	17.786	106.332	1.00	77.45
451	CD	GLU	A	65	-91.151	19.011	106.948	1.00	79.22
452	OE1	GLU	A	65	-91.825	18.859	107.995	1.00	79.11
453	OE2	GLU	A	65	-90.999	20.127	106.388	1.00	79.23
454	C	GLU	A	65	-88.008	16.674	104.299	1.00	76.69
455	O	GLU	A	65	-87.468	16.077	105.232	1.00	76.64
456	N	ASN	A	66	-87.351	17.253	103.304	1.00	77.07
457	CA	ASN	A	66	-85.904	17.310	103.197	1.00	77.55
458	CB	ASN	A	66	-85.569	18.446	102.232	1.00	77.84
459	CG	ASN	A	66	-86.537	19.623	102.371	1.00	78.43
460	OD1	ASN	A	66	-86.832	20.063	103.482	1.00	79.16
461	ND2	ASN	A	66	-87.051	20.115	101.249	1.00	78.36
462	C	ASN	A	66	-85.172	17.550	104.520	1.00	77.66
463	O	ASN	A	66	-84.447	16.684	105.021	1.00	77.65
464	N	SER	A	67	-85.387	18.742	105.068	1.00	77.67
465	CA	SER	A	67	-84.712	19.231	106.268	1.00	77.74
466	CB	SER	A	67	-85.318	20.579	106.671	1.00	77.78
467	OG	SER	A	67	-86.727	20.481	106.792	1.00	77.45
468	C	SER	A	67	-84.683	18.305	107.485	1.00	77.85
469	O	SER	A	67	-83.734	18.349	108.276	1.00	77.93
470	N	THR	A	68	-85.713	17.478	107.634	1.00	77.74
471	CA	THR	A	68	-85.826	16.575	108.779	1.00	77.68
472	CB	THR	A	68	-86.746	15.393	108.440	1.00	77.66
473	OG1	THR	A	68	-87.912	15.871	107.756	1.00	77.83
474	CG2	THR	A	68	-87.301	14.767	109.716	1.00	77.56
475	C	THR	A	68	-84.488	16.043	109.302	1.00	77.67
476	O	THR	A	68	-84.275	15.965	110.514	1.00	77.61
477	N	PHE	A	69	-83.592	15.679	108.390	1.00	77.66
478	CA	PHE	A	69	-82.309	15.108	108.786	1.00	77.63
479	CB	PHE	A	69	-82.122	13.724	108.153	1.00	77.52
480	CG	PHE	A	69	-83.287	12.804	108.352	1.00	76.97
481	CD1	PHE	A	69	-83.546	12.252	109.593	1.00	76.96
482	CE1	PHE	A	69	-84.621	11.405	109.780	1.00	77.06
483	CZ	PHE	A	69	-85.453	11.101	108.719	1.00	77.00
484	CE2	PHE	A	69	-85.201	11.646	107.475	1.00	77.00
485	CD2	PHE	A	69	-84.123	12.492	107.296	1.00	76.74
486	C	PHE	A	69	-81.113	15.985	108.430	1.00	77.81
487	O	PHE	A	69	-79.985	15.492	108.362	1.00	77.86
488	N	ASP	A	70	-81.332	17.277	108.204	1.00	77.78
489	CA	ASP	A	70	-80.197	18.120	107.846	1.00	77.79
490	CB	ASP	A	70	-80.632	19.465	107.261	1.00	78.10
491	CG	ASP	A	70	-81.500	20.261	108.204	1.00	79.05
492	OD1	ASP	A	70	-82.274	21.113	107.713	1.00	79.76
493	OD2	ASP	A	70	-81.480	20.106	109.444	1.00	79.98
494	C	ASP	A	70	-79.237	18.286	109.023	1.00	77.42
495	O	ASP	A	70	-78.149	18.839	108.872	1.00	77.46
496	N	GLU	A	71	-79.646	17.794	110.190	1.00	76.84
497	CA	GLU	A	71	-78.791	17.824	111.370	1.00	76.39
498	CB	GLU	A	71	-79.466	18.565	112.528	1.00	76.72
499	CG	GLU	A	71	-79.637	20.061	112.283	1.00	77.81
500	CD	GLU	A	71	-79.450	20.901	113.540	1.00	79.41



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**FIGURE 3J**

A	B	C	D	E	F	G	H	I	J
501	OE1	GLU	A	71	-79.341	20.323	114.647	1.00	79.94
502	OE2	GLU	A	71	-79.402	22.147	113.420	1.00	79.88
503	C	GLU	A	71	-78.434	16.398	111.765	1.00	75.74
504	O	GLU	A	71	-77.956	16.139	112.876	1.00	75.50
505	N	PHE	A	72	-78.679	15.479	110.833	1.00	74.83
506	CA	PHE	A	72	-78.382	14.064	111.016	1.00	73.85
507	CB	PHE	A	72	-78.782	13.290	109.760	1.00	74.04
508	CG	PHE	A	72	-78.620	11.803	109.877	1.00	74.10
509	CD1	PHE	A	72	-77.575	11.159	109.234	1.00	73.80
510	CE1	PHE	A	72	-77.424	9.798	109.329	1.00	73.80
511	CZ	PHE	A	72	-78.324	9.055	110.065	1.00	74.51
512	CE2	PHE	A	72	-79.377	9.680	110.708	1.00	74.63
513	CD2	PHE	A	72	-79.523	11.048	110.609	1.00	74.10
514	C	PHE	A	72	-76.900	13.861	111.312	1.00	73.03
515	O	PHE	A	72	-76.529	12.977	112.090	1.00	73.05
516	N	GLY	A	73	-76.060	14.680	110.685	1.00	71.87
517	CA	GLY	A	73	-74.625	14.612	110.895	1.00	70.69
518	C	GLY	A	73	-73.888	14.010	109.719	1.00	69.83
519	O	GLY	A	73	-72.656	14.057	109.642	1.00	69.87
520	N	HIS	A	74	-74.650	13.439	108.794	1.00	68.75
521	CA	HIS	A	74	-74.078	12.820	107.611	1.00	67.57
522	CB	HIS	A	74	-74.037	11.303	107.776	1.00	67.49
523	CG	HIS	A	74	-73.715	10.851	109.168	1.00	66.51
524	ND1	HIS	A	74	-72.437	10.527	109.570	1.00	66.10
525	CE1	HIS	A	74	-72.457	10.154	110.838	1.00	65.84
526	NE2	HIS	A	74	-73.703	10.227	111.274	1.00	65.59
527	CD2	HIS	A	74	-74.508	10.660	110.249	1.00	66.42
528	C	HIS	A	74	-74.921	13.191	106.403	1.00	66.95
529	O	HIS	A	74	-75.683	14.158	106.445	1.00	67.33
530	N	SER	A	75	-74.772	12.446	105.315	1.00	65.79
531	CA	SER	A	75	-75.580	12.690	104.125	1.00	64.59
532	CB	SER	A	75	-74.735	13.253	102.981	1.00	64.75
533	OG	SER	A	75	-73.941	12.249	102.382	1.00	64.91
534	C	SER	A	75	-76.263	11.394	103.712	1.00	63.72
535	O	SER	A	75	-75.625	10.347	103.606	1.00	63.44
536	N	ILE	A	76	-77.563	11.471	103.477	1.00	62.64
537	CA	ILE	A	76	-78.347	10.284	103.173	1.00	61.64
538	CB	ILE	A	76	-79.801	10.503	103.594	1.00	61.65
539	CG1	ILE	A	76	-79.855	10.744	105.104	1.00	61.22
540	CD1	ILE	A	76	-79.505	9.531	105.916	1.00	60.30
541	CG2	ILE	A	76	-80.663	9.305	103.195	1.00	61.36
542	C	ILE	A	76	-78.271	9.779	101.733	1.00	61.23
543	O	ILE	A	76	-78.657	10.472	100.781	1.00	60.88
544	N	ASN	A	77	-77.785	8.548	101.594	1.00	60.50
545	CA	ASN	A	77	-77.660	7.915	100.289	1.00	59.70
546	CB	ASN	A	77	-76.639	6.774	100.340	1.00	59.69
547	CG	ASN	A	77	-76.557	6.000	99.035	1.00	59.77
548	OD1	ASN	A	77	-76.121	6.525	98.006	1.00	59.13
549	ND2	ASN	A	77	-76.973	4.742	99.075	1.00	59.64
550	C	ASN	A	77	-79.010	7.410	99.810	1.00	59.12
551	O	ASN	A	77	-79.378	7.590	98.648	1.00	58.95

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**FIGURE 3K**

A	B	C	D	E	F	G	H	I	J
552	N	ASP	A	78	-79.757	6.796	100.716	1.00	58.58
553	CA	ASP	A	78	-81.071	6.269	100.371	1.00	58.27
554	CB	ASP	A	78	-80.938	4.955	99.591	1.00	58.61
555	CG	ASP	A	78	-81.948	4.838	98.455	1.00	60.42
556	OD1	ASP	A	78	-83.168	4.702	98.734	1.00	60.92
557	OD2	ASP	A	78	-81.607	4.867	97.246	1.00	61.79
558	C	ASP	A	78	-81.911	6.045	101.624	1.00	57.52
559	O	ASP	A	78	-81.425	6.129	102.750	1.00	57.00
560	N	TYR	A	79	-83.182	5.748	101.407	1.00	56.98
561	CA	TYR	A	79	-84.116	5.528	102.495	1.00	56.43
562	CB	TYR	A	79	-85.053	6.735	102.638	1.00	56.46
563	CG	TYR	A	79	-85.965	6.926	101.445	1.00	57.21
564	CD1	TYR	A	79	-85.548	7.647	100.338	1.00	58.14
565	CE1	TYR	A	79	-86.374	7.810	99.236	1.00	59.98
566	CZ	TYR	A	79	-87.637	7.240	99.234	1.00	60.76
567	OH	TYR	A	79	-88.464	7.398	98.139	1.00	61.91
568	CE2	TYR	A	79	-88.073	6.516	100.323	1.00	59.61
569	CD2	TYR	A	79	-87.237	6.365	101.421	1.00	58.25
570	C	TYR	A	79	-84.931	4.275	102.206	1.00	55.67
571	O	TYR	A	79	-85.059	3.853	101.067	1.00	55.35
572	N	SER	A	80	-85.491	3.686	103.245	1.00	55.30
573	CA	SER	A	80	-86.341	2.529	103.061	1.00	54.89
574	CB	SER	A	80	-85.538	1.233	103.109	1.00	54.78
575	OG	SER	A	80	-86.410	0.128	103.084	1.00	53.76
576	C	SER	A	80	-87.416	2.518	104.129	1.00	54.94
577	O	SER	A	80	-87.139	2.362	105.318	1.00	54.89
578	N	ILE	A	81	-88.652	2.682	103.691	1.00	54.80
579	CA	ILE	A	81	-89.765	2.695	104.604	1.00	54.71
580	CB	ILE	A	81	-90.858	3.608	104.068	1.00	54.69
581	CG1	ILE	A	81	-90.223	4.877	103.504	1.00	55.47
582	CD1	ILE	A	81	-90.789	6.149	104.053	1.00	55.70
583	CG2	ILE	A	81	-91.889	3.891	105.149	1.00	55.04
584	C	ILE	A	81	-90.326	1.309	104.827	1.00	54.66
585	O	ILE	A	81	-90.635	0.582	103.879	1.00	54.51
586	N	SER	A	82	-90.442	0.942	106.095	1.00	54.62
587	CA	SER	A	82	-91.079	-0.299	106.457	1.00	54.72
588	CB	SER	A	82	-91.280	-0.350	107.976	1.00	55.07
589	OG	SER	A	82	-91.880	-1.575	108.381	1.00	55.75
590	C	SER	A	82	-92.433	-0.340	105.750	1.00	54.55
591	O	SER	A	82	-93.040	0.695	105.498	1.00	54.24
592	N	PRO	A	83	-92.909	-1.532	105.423	1.00	54.57
593	CA	PRO	A	83	-94.216	-1.669	104.784	1.00	54.68
594	CB	PRO	A	83	-94.440	-3.181	104.779	1.00	54.57
595	CG	PRO	A	83	-93.083	-3.768	104.845	1.00	54.64
596	CD	PRO	A	83	-92.249	-2.828	105.647	1.00	54.52
597	C	PRO	A	83	-95.223	-1.015	105.708	1.00	54.77
598	O	PRO	A	83	-96.334	-0.658	105.319	1.00	54.48
599	N	ASP	A	84	-94.781	-0.858	106.950	1.00	54.99
600	CA	ASP	A	84	-95.563	-0.294	108.040	1.00	55.12
601	CB	ASP	A	84	-94.763	-0.421	109.331	1.00	55.15
602	CG	ASP	A	84	-95.363	-1.402	110.258	1.00	55.64

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**FIGURE 3L**

A	B	C	D	E	F	G	H	I	J
603	OD1	ASP	A	84	-94.765	-1.671	111.312	1.00	56.59
604	OD2	ASP	A	84	-96.449	-1.958	110.002	1.00	57.31
605	C	ASP	A	84	-95.918	1.165	107.914	1.00	55.01
606	O	ASP	A	84	-96.973	1.595	108.387	1.00	55.07
607	N	GLY	A	85	-95.017	1.929	107.312	1.00	54.70
608	CA	GLY	A	85	-95.158	3.366	107.279	1.00	54.30
609	C	GLY	A	85	-94.753	3.893	108.647	1.00	54.01
610	O	GLY	A	85	-94.739	5.098	108.871	1.00	54.26
611	N	GLN	A	86	-94.407	2.979	109.554	1.00	53.65
612	CA	GLN	A	86	-94.053	3.319	110.934	1.00	53.40
613	CB	GLN	A	86	-94.536	2.226	111.889	1.00	53.22
614	CG	GLN	A	86	-96.039	2.080	111.914	1.00	53.47
615	CD	GLN	A	86	-96.486	0.894	112.723	1.00	53.71
616	OE1	GLN	A	86	-95.703	0.338	113.497	1.00	54.47
617	NE2	GLN	A	86	-97.740	0.490	112.546	1.00	52.64
618	C	GLN	A	86	-92.571	3.581	111.179	1.00	53.30
619	O	GLN	A	86	-92.183	3.988	112.270	1.00	53.42
620	N	PHE	A	87	-91.733	3.329	110.183	1.00	53.22
621	CA	PHE	A	87	-90.314	3.607	110.333	1.00	52.63
622	CB	PHE	A	87	-89.601	2.456	111.038	1.00	52.99
623	CG	PHE	A	87	-90.205	2.066	112.355	1.00	53.72
624	CD1	PHE	A	87	-89.882	2.751	113.515	1.00	54.78
625	CE1	PHE	A	87	-90.430	2.378	114.733	1.00	55.42
626	CZ	PHE	A	87	-91.302	1.309	114.800	1.00	54.70
627	CE2	PHE	A	87	-91.623	0.619	113.652	1.00	54.87
628	CD2	PHE	A	87	-91.071	0.993	112.438	1.00	53.75
629	C	PHE	A	87	-89.675	3.794	108.981	1.00	52.09
630	O	PHE	A	87	-90.082	3.170	108.004	1.00	51.94
631	N	ILE	A	88	-88.673	4.659	108.920	1.00	51.55
632	CA	ILE	A	88	-87.891	4.799	107.704	1.00	51.12
633	CB	ILE	A	88	-88.022	6.200	107.088	1.00	51.27
634	CG1	ILE	A	88	-87.101	6.316	105.869	1.00	52.21
635	CD1	ILE	A	88	-87.378	7.528	104.998	1.00	52.90
636	CG2	ILE	A	88	-87.682	7.279	108.103	1.00	51.87
637	C	ILE	A	88	-86.431	4.442	107.991	1.00	50.47
638	O	ILE	A	88	-85.828	4.932	108.948	1.00	50.53
639	N	LEU	A	89	-85.877	3.551	107.182	1.00	49.59
640	CA	LEU	A	89	-84.487	3.162	107.331	1.00	48.54
641	CB	LEU	A	89	-84.263	1.793	106.705	1.00	48.62
642	CG	LEU	A	89	-82.852	1.224	106.747	1.00	48.60
643	CD1	LEU	A	89	-82.590	0.405	105.497	1.00	49.00
644	CD2	LEU	A	89	-82.681	0.379	107.982	1.00	48.32
645	C	LEU	A	89	-83.647	4.198	106.612	1.00	47.95
646	O	LEU	A	89	-83.940	4.562	105.479	1.00	47.88
647	N	LEU	A	90	-82.610	4.689	107.270	1.00	47.21
648	CA	LEU	A	90	-81.755	5.692	106.656	1.00	46.75
649	CB	LEU	A	90	-81.589	6.896	107.578	1.00	47.00
650	CG	LEU	A	90	-82.872	7.713	107.691	1.00	47.93
651	CD1	LEU	A	90	-82.628	8.934	108.555	1.00	49.24
652	CD2	LEU	A	90	-83.339	8.118	106.301	1.00	48.21
653	C	LEU	A	90	-80.407	5.089	106.335	1.00	45.87

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**FIGURE 3M**

A	B	C	D	E	F	G	H	I	J
654	O	LEU	A	90	-79.722	4.556	107.211	1.00	45.76
655	N	GLU	A	91	-80.029	5.181	105.070	1.00	44.80
656	CA	GLU	A	91	-78.790	4.584	104.613	1.00	43.70
657	CB	GLU	A	91	-79.048	3.792	103.334	1.00	43.58
658	CG	GLU	A	91	-77.796	3.334	102.611	1.00	43.64
659	CD	GLU	A	91	-78.128	2.469	101.414	1.00	43.67
660	OE1	GLU	A	91	-77.745	2.853	100.295	1.00	43.86
661	OE2	GLU	A	91	-78.781	1.416	101.601	1.00	42.46
662	C	GLU	A	91	-77.725	5.636	104.380	1.00	42.84
663	O	GLU	A	91	-77.952	6.613	103.664	1.00	42.25
664	N	TYR	A	92	-76.561	5.432	104.990	1.00	42.10
665	CA	TYR	A	92	-75.464	6.369	104.811	1.00	41.77
666	CB	TYR	A	92	-75.600	7.567	105.766	1.00	41.94
667	CG	TYR	A	92	-75.429	7.233	107.222	1.00	40.43
668	CD1	TYR	A	92	-76.391	6.521	107.905	1.00	40.23
669	CE1	TYR	A	92	-76.221	6.212	109.242	1.00	41.40
670	CZ	TYR	A	92	-75.087	6.638	109.895	1.00	40.80
671	OH	TYR	A	92	-74.895	6.340	111.221	1.00	42.34
672	CE2	TYR	A	92	-74.121	7.340	109.225	1.00	39.74
673	CD2	TYR	A	92	-74.295	7.634	107.910	1.00	39.63
674	C	TYR	A	92	-74.107	5.686	104.954	1.00	41.71
675	O	TYR	A	92	-74.023	4.546	105.419	1.00	41.24
676	N	ASN	A	93	-73.055	6.400	104.555	1.00	41.38
677	CA	ASN	A	93	-71.706	5.859	104.543	1.00	41.55
678	CB	ASN	A	93	-71.298	5.352	105.925	1.00	42.02
679	CG	ASN	A	93	-71.043	6.482	106.901	1.00	43.73
680	OD1	ASN	A	93	-70.671	7.588	106.502	1.00	45.09
681	ND2	ASN	A	93	-71.249	6.213	108.189	1.00	44.17
682	C	ASN	A	93	-71.606	4.747	103.507	1.00	40.94
683	O	ASN	A	93	-70.962	3.725	103.722	1.00	40.20
684	N	TYR	A	94	-72.274	4.976	102.386	1.00	40.86
685	CA	TYR	A	94	-72.307	4.056	101.270	1.00	40.82
686	CB	TYR	A	94	-73.217	4.620	100.179	1.00	41.16
687	CG	TYR	A	94	-73.168	3.873	98.858	1.00	42.03
688	CD1	TYR	A	94	-73.912	2.716	98.667	1.00	41.93
689	CE1	TYR	A	94	-73.881	2.037	97.464	1.00	42.75
690	CZ	TYR	A	94	-73.098	2.508	96.431	1.00	42.95
691	OH	TYR	A	94	-73.071	1.818	95.239	1.00	45.07
692	CE2	TYR	A	94	-72.354	3.656	96.586	1.00	42.83
693	CD2	TYR	A	94	-72.394	4.340	97.797	1.00	41.85
694	C	TYR	A	94	-70.924	3.788	100.686	1.00	40.68
695	O	TYR	A	94	-70.237	4.702	100.231	1.00	41.17
696	N	VAL	A	95	-70.506	2.530	100.722	1.00	39.96
697	CA	VAL	A	95	-69.270	2.140	100.063	1.00	39.34
698	CB	VAL	A	95	-68.164	1.733	101.047	1.00	39.31
699	CG1	VAL	A	95	-67.994	2.793	102.125	1.00	39.60
700	CG2	VAL	A	95	-68.486	0.402	101.674	1.00	40.76
701	C	VAL	A	95	-69.614	0.999	99.095	1.00	38.41
702	O	VAL	A	95	-69.979	-0.115	99.499	1.00	38.29
703	N	LYS	A	96	-69.545	1.317	97.812	1.00	37.32
704	CA	LYS	A	96	-69.818	0.360	96.759	1.00	36.43

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**FIGURE 3N**

A	B	C	D	E	F	G	H	I	J
705	CB	LYS	A	96	-69.625	1.039	95.410	1.00	36.77
706	CG	LYS	A	96	-69.569	0.073	94.248	1.00	37.54
707	CD	LYS	A	96	-69.843	0.780	92.938	1.00	36.45
708	CE	LYS	A	96	-69.948	-0.234	91.800	1.00	36.87
709	NZ	LYS	A	96	-68.755	-1.131	91.791	1.00	34.18
710	C	LYS	A	96	-68.866	-0.820	96.820	1.00	35.47
711	O	LYS	A	96	-67.672	-0.634	97.073	1.00	34.98
712	N	GLN	A	97	-69.385	-2.035	96.634	1.00	33.71
713	CA	GLN	A	97	-68.473	-3.159	96.451	1.00	32.87
714	CB	GLN	A	97	-68.746	-4.338	97.387	1.00	33.00
715	CG	GLN	A	97	-67.828	-5.535	97.076	1.00	34.97
716	CD	GLN	A	97	-67.804	-6.613	98.149	1.00	36.12
717	OE1	GLN	A	97	-66.746	-6.910	98.709	1.00	37.95
718	NE2	GLN	A	97	-68.951	-7.218	98.414	1.00	37.01
719	C	GLN	A	97	-68.519	-3.570	94.969	1.00	31.95
720	O	GLN	A	97	-67.883	-2.926	94.108	1.00	30.84
721	N	TRP	A	98	-69.303	-4.601	94.670	1.00	30.50
722	CA	TRP	A	98	-69.412	-5.071	93.300	1.00	30.31
723	CB	TRP	A	98	-69.458	-6.607	93.235	1.00	29.81
724	CG	TRP	A	98	-68.354	-7.265	94.042	1.00	26.78
725	CD1	TRP	A	98	-68.487	-8.325	94.896	1.00	25.79
726	NE1	TRP	A	98	-67.276	-8.642	95.459	1.00	24.42
727	CE2	TRP	A	98	-66.318	-7.793	94.961	1.00	24.75
728	CD2	TRP	A	98	-66.961	-6.904	94.075	1.00	24.84
729	CE3	TRP	A	98	-66.190	-5.931	93.433	1.00	22.20
730	CZ3	TRP	A	98	-64.840	-5.866	93.696	1.00	21.42
731	CH2	TRP	A	98	-64.227	-6.765	94.573	1.00	23.42
732	CZ2	TRP	A	98	-64.951	-7.723	95.231	1.00	23.60
733	C	TRP	A	98	-70.596	-4.414	92.593	1.00	30.53
734	O	TRP	A	98	-70.938	-3.275	92.887	1.00	31.01
735	N	ARG	A	99	-71.217	-5.110	91.652	1.00	30.41
736	CA	ARG	A	99	-72.287	-4.486	90.884	1.00	29.78
737	CB	ARG	A	99	-72.688	-5.349	89.710	1.00	30.16
738	CG	ARG	A	99	-73.689	-4.661	88.806	1.00	30.00
739	CD	ARG	A	99	-74.321	-5.596	87.831	1.00	32.10
740	NE	ARG	A	99	-73.349	-6.235	86.953	1.00	31.79
741	CZ	ARG	A	99	-72.956	-5.724	85.795	1.00	35.74
742	NH1	ARG	A	99	-73.430	-4.546	85.405	1.00	34.55
743	NH2	ARG	A	99	-72.078	-6.379	85.022	1.00	36.45
744	C	ARG	A	99	-73.530	-4.164	91.691	1.00	29.82
745	O	ARG	A	99	-74.207	-3.157	91.452	1.00	29.36
746	N	HIS	A	100	-73.852	-5.028	92.634	1.00	29.79
747	CA	HIS	A	100	-75.030	-4.786	93.450	1.00	30.01
748	CB	HIS	A	100	-76.027	-5.943	93.328	1.00	29.65
749	CG	HIS	A	100	-76.377	-6.288	91.913	1.00	30.33
750	ND1	HIS	A	100	-77.319	-5.587	91.188	1.00	29.96
751	CE1	HIS	A	100	-77.422	-6.114	89.978	1.00	30.33
752	NE2	HIS	A	100	-76.571	-7.122	89.889	1.00	31.44
753	CD2	HIS	A	100	-75.903	-7.254	91.085	1.00	28.82
754	C	HIS	A	100	-74.631	-4.605	94.904	1.00	29.88
755	O	HIS	A	100	-75.307	-3.893	95.644	1.00	29.96

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**FIGURE 30**

A	B	C	D	E	F	G	H	I	J
756	N	SER	A	101	-73.516	-5.222	95.285	1.00	29.75
757	CA	SER	A	101	-73.077	-5.245	96.670	1.00	30.71
758	CB	SER	A	101	-72.126	-6.415	96.914	1.00	30.60
759	OG	SER	A	101	-70.964	-6.315	96.115	1.00	30.67
760	C	SER	A	101	-72.463	-3.951	97.192	1.00	31.43
761	O	SER	A	101	-71.795	-3.209	96.475	1.00	31.45
762	N	TYR	A	102	-72.729	-3.667	98.451	1.00	32.61
763	CA	TYR	A	102	-72.153	-2.489	99.073	1.00	34.02
764	CB	TYR	A	102	-72.795	-1.201	98.554	1.00	33.97
765	CG	TYR	A	102	-74.265	-1.034	98.891	1.00	34.51
766	CD1	TYR	A	102	-74.671	-0.554	100.132	1.00	34.44
767	CE1	TYR	A	102	-76.017	-0.393	100.436	1.00	34.19
768	CZ	TYR	A	102	-76.968	-0.688	99.482	1.00	36.01
769	OH	TYR	A	102	-78.312	-0.527	99.758	1.00	37.07
770	CE2	TYR	A	102	-76.590	-1.153	98.230	1.00	35.53
771	CD2	TYR	A	102	-75.247	-1.322	97.945	1.00	34.87
772	C	TYR	A	102	-72.281	-2.547	100.566	1.00	34.63
773	O	TYR	A	102	-72.993	-3.380	101.130	1.00	34.79
774	N	THR	A	103	-71.571	-1.640	101.200	1.00	35.57
775	CA	THR	A	103	-71.584	-1.535	102.632	1.00	36.51
776	CB	THR	A	103	-70.182	-1.745	103.149	1.00	36.49
777	OG1	THR	A	103	-70.038	-3.123	103.533	1.00	37.55
778	CG2	THR	A	103	-69.993	-0.988	104.434	1.00	37.30
779	C	THR	A	103	-72.088	-0.153	102.988	1.00	37.41
780	O	THR	A	103	-71.922	0.800	102.214	1.00	36.93
781	N	ALA	A	104	-72.696	-0.041	104.161	1.00	38.57
782	CA	ALA	A	104	-73.281	1.216	104.570	1.00	40.16
783	CB	ALA	A	104	-74.518	1.506	103.702	1.00	39.76
784	C	ALA	A	104	-73.661	1.229	106.054	1.00	41.38
785	O	ALA	A	104	-73.799	0.181	106.696	1.00	41.40
786	N	SER	A	105	-73.800	2.432	106.596	1.00	42.97
787	CA	SER	A	105	-74.254	2.611	107.967	1.00	44.31
788	CB	SER	A	105	-73.699	3.900	108.551	1.00	44.20
789	OG	SER	A	105	-72.328	3.796	108.864	1.00	44.43
790	C	SER	A	105	-75.769	2.709	107.928	1.00	45.32
791	O	SER	A	105	-76.356	3.008	106.886	1.00	45.47
792	N	TYR	A	106	-76.408	2.476	109.063	1.00	46.70
793	CA	TYR	A	106	-77.859	2.545	109.112	1.00	47.94
794	CB	TYR	A	106	-78.464	1.154	108.886	1.00	47.65
795	CG	TYR	A	106	-78.255	0.642	107.477	1.00	48.49
796	CD1	TYR	A	106	-77.163	-0.160	107.156	1.00	48.56
797	CE1	TYR	A	106	-76.959	-0.606	105.861	1.00	48.75
798	CZ	TYR	A	106	-77.854	-0.258	104.870	1.00	48.53
799	OH	TYR	A	106	-77.676	-0.696	103.583	1.00	47.41
800	CE2	TYR	A	106	-78.936	0.541	105.164	1.00	49.52
801	CD2	TYR	A	106	-79.130	0.989	106.461	1.00	48.40
802	C	TYR	A	106	-78.415	3.171	110.389	1.00	48.72
803	O	TYR	A	106	-77.926	2.932	111.488	1.00	49.04
804	N	ASP	A	107	-79.434	3.996	110.215	1.00	49.97
805	CA	ASP	A	107	-80.176	4.552	111.330	1.00	51.26
806	CB	ASP	A	107	-79.841	6.019	111.562	1.00	51.15

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**FIGURE 3P**

A	B	C	D	E	F	G	H	I	J
807	CG	ASP	A	107	-78.522	6.198	112.262	1.00	51.39
808	OD1	ASP	A	107	-78.343	5.617	113.347	1.00	50.59
809	OD2	ASP	A	107	-77.593	6.879	111.793	1.00	52.74
810	C	ASP	A	107	-81.647	4.386	111.023	1.00	52.24
811	O	ASP	A	107	-82.090	4.631	109.895	1.00	52.43
812	N	ILE	A	108	-82.386	3.929	112.024	1.00	53.27
813	CA	ILE	A	108	-83.814	3.747	111.907	1.00	54.46
814	CB	ILE	A	108	-84.248	2.509	112.681	1.00	54.40
815	CG1	ILE	A	108	-83.414	1.300	112.263	1.00	54.06
816	CD1	ILE	A	108	-83.603	0.109	113.152	1.00	53.98
817	CG2	ILE	A	108	-85.731	2.262	112.466	1.00	54.24
818	C	ILE	A	108	-84.495	4.949	112.510	1.00	55.70
819	O	ILE	A	108	-84.175	5.358	113.625	1.00	56.05
820	N	TYR	A	109	-85.452	5.508	111.786	1.00	56.99
821	CA	TYR	A	109	-86.158	6.679	112.267	1.00	58.18
822	CB	TYR	A	109	-86.000	7.808	111.258	1.00	58.13
823	CG	TYR	A	109	-86.724	9.070	111.635	1.00	58.70
824	CD1	TYR	A	109	-86.180	9.951	112.551	1.00	58.38
825	CE1	TYR	A	109	-86.837	11.108	112.897	1.00	59.66
826	CZ	TYR	A	109	-88.056	11.399	112.323	1.00	60.37
827	OH	TYR	A	109	-88.707	12.557	112.673	1.00	61.64
828	CE2	TYR	A	109	-88.621	10.539	111.407	1.00	60.00
829	CD2	TYR	A	109	-87.956	9.381	111.071	1.00	59.25
830	C	TYR	A	109	-87.636	6.381	112.503	1.00	59.21
831	O	TYR	A	109	-88.353	5.994	111.578	1.00	59.31
832	N	ASP	A	110	-88.084	6.563	113.745	1.00	60.39
833	CA	ASP	A	110	-89.485	6.369	114.108	1.00	61.55
834	CB	ASP	A	110	-89.647	6.365	115.626	1.00	61.48
835	CG	ASP	A	110	-91.000	5.839	116.072	1.00	61.56
836	OD1	ASP	A	110	-92.038	6.409	115.667	1.00	61.84
837	OD2	ASP	A	110	-91.120	4.862	116.843	1.00	61.51
838	C	ASP	A	110	-90.313	7.494	113.509	1.00	62.57
839	O	ASP	A	110	-90.068	8.666	113.781	1.00	62.64
840	N	LEU	A	111	-91.298	7.132	112.699	1.00	63.95
841	CA	LEU	A	111	-92.101	8.117	111.991	1.00	65.62
842	CB	LEU	A	111	-92.821	7.452	110.816	1.00	65.53
843	CG	LEU	A	111	-91.945	7.211	109.587	1.00	65.20
844	CD1	LEU	A	111	-91.671	8.533	108.898	1.00	65.10
845	CD2	LEU	A	111	-92.590	6.243	108.625	1.00	64.19
846	C	LEU	A	111	-93.105	8.869	112.863	1.00	66.86
847	O	LEU	A	111	-93.350	10.061	112.649	1.00	67.09
848	N	ASN	A	112	-93.699	8.175	113.829	1.00	68.18
849	CA	ASN	A	112	-94.687	8.813	114.694	1.00	69.43
850	CB	ASN	A	112	-95.815	7.847	115.063	1.00	69.91
851	CG	ASN	A	112	-96.951	7.868	114.043	1.00	71.54
852	OD1	ASN	A	112	-97.853	8.716	114.111	1.00	73.34
853	ND2	ASN	A	112	-96.905	6.947	113.085	1.00	72.43
854	C	ASN	A	112	-94.074	9.498	115.917	1.00	69.67
855	O	ASN	A	112	-94.454	10.618	116.255	1.00	69.91
856	N	LYS	A	113	-93.130	8.834	116.576	1.00	69.67
857	CA	LYS	A	113	-92.411	9.467	117.666	1.00	69.79

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**FIGURE 3Q**

A	B	C	D	E	F	G	H	I	J
858	CB	LYS	A	113	-91.581	8.445	118.432	1.00	69.92
859	CG	LYS	A	113	-92.323	7.474	119.317	1.00	71.09
860	CD	LYS	A	113	-91.307	6.839	120.266	1.00	73.31
861	CE	LYS	A	113	-91.738	5.475	120.779	1.00	74.59
862	NZ	LYS	A	113	-92.421	5.556	122.104	1.00	75.40
863	C	LYS	A	113	-91.429	10.414	116.999	1.00	69.62
864	O	LYS	A	113	-90.600	11.044	117.657	1.00	69.51
865	N	ARG	A	114	-91.531	10.490	115.676	1.00	69.50
866	CA	ARG	A	114	-90.529	11.161	114.843	1.00	69.30
867	CB	ARG	A	114	-91.101	12.337	114.026	1.00	69.52
868	CG	ARG	A	114	-91.369	13.633	114.748	1.00	70.06
869	CD	ARG	A	114	-91.489	14.829	113.791	1.00	71.10
870	NE	ARG	A	114	-92.790	14.901	113.115	1.00	71.72
871	CZ	ARG	A	114	-93.128	15.839	112.231	1.00	71.44
872	NH1	ARG	A	114	-94.333	15.827	111.677	1.00	71.11
873	NH2	ARG	A	114	-92.261	16.789	111.897	1.00	71.05
874	C	ARG	A	114	-89.199	11.453	115.552	1.00	68.86
875	O	ARG	A	114	-88.787	12.597	115.691	1.00	68.68
876	N	GLN	A	115	-88.545	10.390	116.011	1.00	68.59
877	CA	GLN	A	115	-87.224	10.501	116.619	1.00	68.27
878	CB	GLN	A	115	-87.286	10.587	118.152	1.00	68.48
879	CG	GLN	A	115	-87.726	9.325	118.890	1.00	68.71
880	CD	GLN	A	115	-88.312	9.644	120.261	1.00	68.76
881	OE1	GLN	A	115	-89.533	9.723	120.413	1.00	69.09
882	NE2	GLN	A	115	-87.448	9.843	121.250	1.00	67.97
883	C	GLN	A	115	-86.331	9.363	116.139	1.00	67.81
884	O	GLN	A	115	-86.814	8.327	115.682	1.00	68.07
885	N	LEU	A	116	-85.028	9.584	116.241	1.00	66.96
886	CA	LEU	A	116	-84.010	8.666	115.760	1.00	66.14
887	CB	LEU	A	116	-82.740	9.482	115.521	1.00	66.09
888	CG	LEU	A	116	-81.798	9.189	114.366	1.00	66.06
889	CD1	LEU	A	116	-80.787	10.318	114.260	1.00	66.19
890	CD2	LEU	A	116	-82.573	9.043	113.070	1.00	66.04
891	C	LEU	A	116	-83.713	7.592	116.798	1.00	65.84
892	O	LEU	A	116	-83.144	7.894	117.852	1.00	65.90
893	N	ILE	A	117	-84.085	6.344	116.527	1.00	65.02
894	CA	ILE	A	117	-83.763	5.293	117.482	1.00	64.46
895	CB	ILE	A	117	-84.102	3.901	116.942	1.00	64.31
896	CG1	ILE	A	117	-85.566	3.561	117.228	1.00	64.66
897	CD1	ILE	A	117	-86.567	4.342	116.400	1.00	64.28
898	CG2	ILE	A	117	-83.231	2.855	117.608	1.00	64.41
899	C	ILE	A	117	-82.280	5.405	117.794	1.00	64.18
900	O	ILE	A	117	-81.452	5.443	116.888	1.00	64.41
901	N	THR	A	118	-81.945	5.509	119.073	1.00	63.78
902	CA	THR	A	118	-80.549	5.628	119.469	1.00	63.43
903	CB	THR	A	118	-80.305	6.903	120.294	1.00	63.51
904	OG1	THR	A	118	-81.158	6.899	121.446	1.00	63.30
905	CG2	THR	A	118	-80.750	8.131	119.519	1.00	64.33
906	C	THR	A	118	-80.178	4.428	120.299	1.00	62.89
907	O	THR	A	118	-79.093	4.363	120.865	1.00	63.13
908	N	GLU	A	119	-81.095	3.483	120.404	1.00	62.19



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**FIGURE 3R**

A	B	C	D	E	F	G	H	I	J
909	CA	GLU	A	119	-80.789	2.302	121.179	1.00	61.90
910	CB	GLU	A	119	-81.876	1.988	122.212	1.00	62.16
911	CG	GLU	A	119	-83.295	2.021	121.682	1.00	63.42
912	CD	GLU	A	119	-84.097	3.175	122.249	1.00	64.70
913	OE1	GLU	A	119	-85.216	2.925	122.752	1.00	63.29
914	OE2	GLU	A	119	-83.603	4.322	122.200	1.00	65.47
915	C	GLU	A	119	-80.553	1.116	120.270	1.00	61.26
916	O	GLU	A	119	-81.336	0.833	119.358	1.00	61.12
917	N	GLU	A	120	-79.435	0.451	120.508	1.00	60.35
918	CA	GLU	A	120	-79.112	-0.751	119.782	1.00	59.58
919	CB	GLU	A	120	-80.038	-1.855	120.236	1.00	59.80
920	CG	GLU	A	120	-79.656	-2.395	121.592	1.00	60.94
921	CD	GLU	A	120	-79.723	-3.888	121.581	1.00	62.51
922	OE1	GLU	A	120	-80.436	-4.398	120.697	1.00	62.86
923	OE2	GLU	A	120	-79.059	-4.541	122.413	1.00	64.11
924	C	GLU	A	120	-79.213	-0.567	118.280	1.00	58.60
925	O	GLU	A	120	-80.009	-1.223	117.607	1.00	58.51
926	N	ARG	A	121	-78.380	0.325	117.764	1.00	57.22
927	CA	ARG	A	121	-78.379	0.646	116.351	1.00	55.90
928	CB	ARG	A	121	-77.564	1.925	116.127	1.00	56.41
929	CG	ARG	A	121	-78.211	3.159	116.755	1.00	58.26
930	CD	ARG	A	121	-77.247	4.271	117.158	1.00	62.15
931	NE	ARG	A	121	-76.774	5.071	116.030	1.00	64.53
932	CZ	ARG	A	121	-75.558	5.604	115.961	1.00	66.45
933	NH1	ARG	A	121	-74.695	5.414	116.955	1.00	66.14
934	NH2	ARG	A	121	-75.201	6.323	114.901	1.00	67.16
935	C	ARG	A	121	-77.839	-0.499	115.494	1.00	54.28
936	O	ARG	A	121	-77.194	-1.427	115.988	1.00	53.50
937	N	ILE	A	122	-78.151	-0.437	114.206	1.00	52.62
938	CA	ILE	A	122	-77.596	-1.363	113.237	1.00	50.94
939	CB	ILE	A	122	-78.290	-1.160	111.893	1.00	50.64
940	CG1	ILE	A	122	-79.765	-1.551	112.013	1.00	50.60
941	CD1	ILE	A	122	-80.633	-1.119	110.847	1.00	49.17
942	CG2	ILE	A	122	-77.612	-1.969	110.811	1.00	50.97
943	C	ILE	A	122	-76.106	-1.026	113.159	1.00	50.01
944	O	ILE	A	122	-75.733	0.152	113.129	1.00	49.67
945	N	PRO	A	123	-75.251	-2.043	113.163	1.00	49.10
946	CA	PRO	A	123	-73.802	-1.814	113.145	1.00	48.58
947	CB	PRO	A	123	-73.216	-3.227	113.096	1.00	48.45
948	CG	PRO	A	123	-74.298	-4.112	113.584	1.00	48.91
949	CD	PRO	A	123	-75.591	-3.473	113.188	1.00	48.92
950	C	PRO	A	123	-73.356	-1.044	111.922	1.00	48.24
951	O	PRO	A	123	-74.093	-0.916	110.936	1.00	47.98
952	N	ASN	A	124	-72.146	-0.507	111.994	1.00	48.07
953	CA	ASN	A	124	-71.560	0.145	110.831	1.00	47.49
954	CB	ASN	A	124	-70.366	1.008	111.239	1.00	47.79
955	CG	ASN	A	124	-70.770	2.223	112.062	1.00	49.27
956	OD1	ASN	A	124	-71.831	2.812	111.845	1.00	50.29
957	ND2	ASN	A	124	-69.912	2.614	113.004	1.00	49.78
958	C	ASN	A	124	-71.092	-0.982	109.924	1.00	46.23
959	O	ASN	A	124	-70.885	-2.101	110.389	1.00	45.94

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**FIGURE 3S**

A	B	C	D	E	F	G	H	I	J
960	N	ASN	A	125	-70.917	-0.698	108.640	1.00	45.11
961	CA	ASN	A	125	-70.441	-1.722	107.723	1.00	44.23
962	CB	ASN	A	125	-69.043	-2.183	108.135	1.00	44.07
963	CG	ASN	A	125	-68.077	-1.040	108.229	1.00	43.99
964	OD1	ASN	A	125	-67.545	-0.763	109.292	1.00	45.19
965	ND2	ASN	A	125	-67.855	-0.353	107.115	1.00	43.79
966	C	ASN	A	125	-71.376	-2.927	107.635	1.00	43.28
967	O	ASN	A	125	-70.931	-4.071	107.510	1.00	43.08
968	N	THR	A	126	-72.670	-2.658	107.736	1.00	42.12
969	CA	THR	A	126	-73.668	-3.691	107.597	1.00	41.08
970	CB	THR	A	126	-75.019	-3.208	108.126	1.00	41.17
971	OG1	THR	A	126	-74.984	-3.203	109.559	1.00	41.92
972	CG2	THR	A	126	-76.101	-4.228	107.820	1.00	41.52
973	C	THR	A	126	-73.713	-3.966	106.111	1.00	39.94
974	O	THR	A	126	-73.741	-3.041	105.301	1.00	39.39
975	N	GLN	A	127	-73.669	-5.245	105.763	1.00	39.17
976	CA	GLN	A	127	-73.550	-5.662	104.375	1.00	38.23
977	CB	GLN	A	127	-72.940	-7.054	104.312	1.00	37.88
978	CG	GLN	A	127	-71.446	-7.014	104.569	1.00	36.17
979	CD	GLN	A	127	-70.908	-8.312	105.078	1.00	33.91
980	OE1	GLN	A	127	-69.921	-8.823	104.552	1.00	34.78
981	NE2	GLN	A	127	-71.555	-8.866	106.093	1.00	31.99
982	C	GLN	A	127	-74.851	-5.567	103.624	1.00	38.42
983	O	GLN	A	127	-74.865	-5.372	102.419	1.00	38.49
984	N	TRP	A	128	-75.953	-5.672	104.347	1.00	38.80
985	CA	TRP	A	128	-77.253	-5.597	103.716	1.00	39.06
986	CB	TRP	A	128	-77.407	-6.733	102.704	1.00	39.48
987	CG	TRP	A	128	-78.784	-6.870	102.181	1.00	40.32
988	CD1	TRP	A	128	-79.787	-7.620	102.714	1.00	42.04
989	NE1	TRP	A	128	-80.930	-7.482	101.963	1.00	43.55
990	CE2	TRP	A	128	-80.672	-6.636	100.917	1.00	42.36
991	CD2	TRP	A	128	-79.328	-6.231	101.026	1.00	41.21
992	CE3	TRP	A	128	-78.815	-5.355	100.068	1.00	42.04
993	CZ3	TRP	A	128	-79.635	-4.924	99.054	1.00	42.24
994	CH2	TRP	A	128	-80.968	-5.348	98.973	1.00	44.12
995	CZ2	TRP	A	128	-81.502	-6.206	99.893	1.00	42.48
996	C	TRP	A	128	-78.340	-5.668	104.763	1.00	39.04
997	O	TRP	A	128	-78.176	-6.312	105.797	1.00	39.07
998	N	VAL	A	129	-79.449	-4.993	104.501	1.00	39.22
999	CA	VAL	A	129	-80.573	-5.012	105.421	1.00	39.73
1000	CB	VAL	A	129	-80.561	-3.768	106.370	1.00	39.67
1001	CG1	VAL	A	129	-81.267	-2.598	105.736	1.00	39.95
1002	CG2	VAL	A	129	-79.147	-3.363	106.726	1.00	39.92
1003	C	VAL	A	129	-81.874	-4.996	104.638	1.00	39.96
1004	O	VAL	A	129	-81.929	-4.494	103.519	1.00	39.45
1005	N	THR	A	130	-82.931	-5.545	105.218	1.00	40.74
1006	CA	THR	A	130	-84.229	-5.427	104.584	1.00	41.45
1007	CB	THR	A	130	-84.362	-6.373	103.381	1.00	41.93
1008	OG1	THR	A	130	-85.650	-6.188	102.773	1.00	43.29
1009	CG2	THR	A	130	-84.389	-7.832	103.834	1.00	41.38
1010	C	THR	A	130	-85.395	-5.615	105.543	1.00	41.98

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**FIGURE 3T**

A	B	C	D	E	F	G	H	I	J
1011	O	THR	A	130	-85.339	-6.402	106.496	1.00	41.50
1012	N	TRP	A	131	-86.459	-4.872	105.270	1.00	42.53
1013	CA	TRP	A	131	-87.679	-4.980	106.034	1.00	43.30
1014	CB	TRP	A	131	-88.609	-3.829	105.675	1.00	43.34
1015	CG	TRP	A	131	-88.116	-2.480	106.045	1.00	43.96
1016	CD1	TRP	A	131	-87.760	-1.485	105.192	1.00	43.49
1017	NE1	TRP	A	131	-87.378	-0.370	105.897	1.00	43.73
1018	CE2	TRP	A	131	-87.505	-0.624	107.237	1.00	44.47
1019	CD2	TRP	A	131	-87.969	-1.948	107.367	1.00	44.17
1020	CE3	TRP	A	131	-88.190	-2.455	108.652	1.00	45.01
1021	CZ3	TRP	A	131	-87.926	-1.639	109.752	1.00	45.89
1022	CH2	TRP	A	131	-87.454	-0.328	109.586	1.00	44.65
1023	CZ2	TRP	A	131	-87.240	0.198	108.343	1.00	44.48
1024	C	TRP	A	131	-88.390	-6.275	105.670	1.00	43.74
1025	O	TRP	A	131	-88.285	-6.757	104.544	1.00	44.08
1026	N	SER	A	132	-89.120	-6.837	106.621	1.00	44.16
1027	CA	SER	A	132	-89.949	-7.983	106.335	1.00	44.80
1028	CB	SER	A	132	-90.532	-8.510	107.636	1.00	45.09
1029	OG	SER	A	132	-90.894	-7.434	108.493	1.00	46.47
1030	C	SER	A	132	-91.033	-7.442	105.411	1.00	44.95
1031	O	SER	A	132	-91.272	-6.243	105.413	1.00	45.46
1032	N	PRO	A	133	-91.696	-8.294	104.633	1.00	45.04
1033	CA	PRO	A	133	-92.699	-7.830	103.660	1.00	45.04
1034	CB	PRO	A	133	-93.123	-9.112	102.930	1.00	44.91
1035	CG	PRO	A	133	-92.109	-10.135	103.279	1.00	45.39
1036	CD	PRO	A	133	-91.569	-9.759	104.643	1.00	45.43
1037	C	PRO	A	133	-93.913	-7.165	104.314	1.00	45.29
1038	O	PRO	A	133	-94.553	-6.316	103.699	1.00	45.33
1039	N	VAL	A	134	-94.253	-7.565	105.533	1.00	45.55
1040	CA	VAL	A	134	-95.300	-6.868	106.271	1.00	45.72
1041	CB	VAL	A	134	-96.563	-7.734	106.505	1.00	45.84
1042	CG1	VAL	A	134	-96.933	-8.533	105.245	1.00	46.77
1043	CG2	VAL	A	134	-96.358	-8.668	107.670	1.00	46.13
1044	C	VAL	A	134	-94.701	-6.474	107.606	1.00	45.52
1045	O	VAL	A	134	-93.721	-7.075	108.034	1.00	45.73
1046	N	GLY	A	135	-95.263	-5.455	108.251	1.00	45.50
1047	CA	GLY	A	135	-94.810	-5.049	109.569	1.00	45.25
1048	C	GLY	A	135	-93.524	-4.252	109.564	1.00	45.44
1049	O	GLY	A	135	-93.297	-3.438	108.673	1.00	45.45
1050	N	HIS	A	136	-92.680	-4.471	110.568	1.00	45.65
1051	CA	HIS	A	136	-91.403	-3.758	110.635	1.00	45.56
1052	CB	HIS	A	136	-91.539	-2.444	111.416	1.00	45.75
1053	CG	HIS	A	136	-92.231	-2.597	112.735	1.00	47.21
1054	ND1	HIS	A	136	-93.566	-2.303	112.912	1.00	47.51
1055	CE1	HIS	A	136	-93.903	-2.538	114.168	1.00	48.81
1056	NE2	HIS	A	136	-92.835	-2.981	114.811	1.00	48.63
1057	CD2	HIS	A	136	-91.776	-3.030	113.936	1.00	47.97
1058	C	HIS	A	136	-90.253	-4.600	111.190	1.00	44.87
1059	O	HIS	A	136	-89.287	-4.065	111.725	1.00	44.84
1060	N	LYS	A	137	-90.356	-5.915	111.073	1.00	44.39
1061	CA	LYS	A	137	-89.218	-6.752	111.427	1.00	44.14

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**FIGURE 3U**

A	B	C	D	E	F	G	H	I	J
1062	CB	LYS	A	137	-89.525	-8.234	111.221	1.00	44.38
1063	CG	LYS	A	137	-90.517	-8.825	112.212	1.00	45.40
1064	CD	LYS	A	137	-90.881	-10.260	111.834	1.00	46.13
1065	CE	LYS	A	137	-91.885	-10.860	112.803	1.00	47.44
1066	NZ	LYS	A	137	-92.536	-12.087	112.238	1.00	47.73
1067	C	LYS	A	137	-88.063	-6.341	110.522	1.00	43.33
1068	O	LYS	A	137	-88.275	-5.833	109.416	1.00	43.23
1069	N	LEU	A	138	-86.840	-6.568	110.979	1.00	42.68
1070	CA	LEU	A	138	-85.671	-6.153	110.218	1.00	41.52
1071	CB	LEU	A	138	-85.018	-4.982	110.930	1.00	41.84
1072	CG	LEU	A	138	-84.322	-3.909	110.108	1.00	42.22
1073	CD1	LEU	A	138	-85.154	-3.506	108.898	1.00	42.38
1074	CD2	LEU	A	138	-84.088	-2.720	111.016	1.00	42.71
1075	C	LEU	A	138	-84.677	-7.280	110.134	1.00	40.47
1076	O	LEU	A	138	-84.405	-7.932	111.138	1.00	41.40
1077	N	ALA	A	139	-84.143	-7.528	108.944	1.00	38.83
1078	CA	ALA	A	139	-83.103	-8.541	108.774	1.00	37.16
1079	CB	ALA	A	139	-83.601	-9.692	107.920	1.00	37.29
1080	C	ALA	A	139	-81.885	-7.898	108.139	1.00	36.17
1081	O	ALA	A	139	-82.000	-7.164	107.156	1.00	35.70
1082	N	TYR	A	140	-80.715	-8.129	108.709	1.00	35.24
1083	CA	TYR	A	140	-79.522	-7.555	108.115	1.00	35.08
1084	CB	TYR	A	140	-79.210	-6.175	108.690	1.00	35.34
1085	CG	TYR	A	140	-78.885	-6.181	110.155	1.00	37.69
1086	CD1	TYR	A	140	-77.596	-6.445	110.597	1.00	38.79
1087	CE1	TYR	A	140	-77.286	-6.450	111.949	1.00	40.18
1088	CZ	TYR	A	140	-78.272	-6.182	112.876	1.00	41.32
1089	OH	TYR	A	140	-77.963	-6.193	114.222	1.00	42.58
1090	CE2	TYR	A	140	-79.561	-5.908	112.462	1.00	40.81
1091	CD2	TYR	A	140	-79.863	-5.906	111.103	1.00	39.64
1092	C	TYR	A	140	-78.356	-8.485	108.275	1.00	34.37
1093	O	TYR	A	140	-78.386	-9.395	109.102	1.00	34.18
1094	N	VAL	A	141	-77.334	-8.257	107.458	1.00	34.13
1095	CA	VAL	A	141	-76.134	-9.082	107.468	1.00	33.48
1096	CB	VAL	A	141	-75.896	-9.751	106.106	1.00	33.42
1097	CG1	VAL	A	141	-77.211	-10.262	105.541	1.00	31.77
1098	CG2	VAL	A	141	-74.877	-10.893	106.245	1.00	32.42
1099	C	VAL	A	141	-74.947	-8.226	107.804	1.00	33.83
1100	O	VAL	A	141	-74.775	-7.150	107.251	1.00	33.33
1101	N	TRP	A	142	-74.117	-8.713	108.716	1.00	34.55
1102	CA	TRP	A	142	-72.984	-7.935	109.170	1.00	35.09
1103	CB	TRP	A	142	-73.376	-7.128	110.417	1.00	35.47
1104	CG	TRP	A	142	-72.236	-6.359	110.983	1.00	35.69
1105	CD1	TRP	A	142	-71.680	-5.237	110.472	1.00	36.60
1106	NE1	TRP	A	142	-70.639	-4.817	111.262	1.00	38.27
1107	CE2	TRP	A	142	-70.502	-5.694	112.307	1.00	38.61
1108	CD2	TRP	A	142	-71.494	-6.675	112.160	1.00	38.36
1109	CE3	TRP	A	142	-71.574	-7.691	113.118	1.00	40.02
1110	CZ3	TRP	A	142	-70.677	-7.690	114.170	1.00	40.38
1111	CH2	TRP	A	142	-69.704	-6.702	114.284	1.00	40.24
1112	CZ2	TRP	A	142	-69.602	-5.693	113.367	1.00	39.52

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**FIGURE 3V**

A	B	C	D	E	F	G	H	I	J
1113	C	TRP	A	142	-71.855	-8.883	109.483	1.00	35.15
1114	O	TRP	A	142	-72.018	-9.831	110.256	1.00	35.26
1115	N	ASN	A	143	-70.696	-8.626	108.904	1.00	35.50
1116	CA	ASN	A	143	-69.592	-9.572	109.029	1.00	35.74
1117	CB	ASN	A	143	-69.051	-9.634	110.454	1.00	36.25
1118	CG	ASN	A	143	-68.152	-8.455	110.785	1.00	38.65
1119	OD1	ASN	A	143	-67.501	-8.428	111.833	1.00	42.03
1120	ND2	ASN	A	143	-68.117	-7.471	109.896	1.00	40.07
1121	C	ASN	A	143	-70.033	-10.954	108.566	1.00	35.13
1122	O	ASN	A	143	-69.748	-11.944	109.206	1.00	35.06
1123	N	ASN	A	144	-70.750	-11.001	107.448	1.00	34.94
1124	CA	ASN	A	144	-71.161	-12.263	106.866	1.00	34.63
1125	CB	ASN	A	144	-69.933	-13.086	106.519	1.00	34.01
1126	CG	ASN	A	144	-69.222	-12.572	105.289	1.00	35.19
1127	OD1	ASN	A	144	-68.829	-13.363	104.432	1.00	36.37
1128	ND2	ASN	A	144	-69.058	-11.243	105.182	1.00	32.83
1129	C	ASN	A	144	-72.122	-13.065	107.732	1.00	34.70
1130	O	ASN	A	144	-72.353	-14.247	107.491	1.00	34.50
1131	N	ASP	A	145	-72.673	-12.434	108.754	1.00	34.98
1132	CA	ASP	A	145	-73.681	-13.107	109.555	1.00	35.75
1133	CB	ASP	A	145	-73.203	-13.327	110.979	1.00	35.92
1134	CG	ASP	A	145	-72.385	-14.559	111.098	1.00	35.82
1135	OD1	ASP	A	145	-71.412	-14.583	111.889	1.00	36.17
1136	OD2	ASP	A	145	-72.652	-15.564	110.409	1.00	36.92
1137	C	ASP	A	145	-75.016	-12.394	109.516	1.00	36.02
1138	O	ASP	A	145	-75.081	-11.178	109.378	1.00	36.11
1139	N	ILE	A	146	-76.085	-13.170	109.600	1.00	36.79
1140	CA	ILE	A	146	-77.428	-12.627	109.525	1.00	37.78
1141	CB	ILE	A	146	-78.338	-13.631	108.844	1.00	37.37
1142	CG1	ILE	A	146	-79.711	-13.033	108.630	1.00	37.36
1143	CD1	ILE	A	146	-80.724	-13.594	109.517	1.00	36.92
1144	CG2	ILE	A	146	-78.474	-14.842	109.711	1.00	38.98
1145	C	ILE	A	146	-77.977	-12.280	110.903	1.00	38.75
1146	O	ILE	A	146	-77.698	-12.958	111.885	1.00	38.28
1147	N	TYR	A	147	-78.766	-11.213	110.960	1.00	40.52
1148	CA	TYR	A	147	-79.319	-10.724	112.215	1.00	42.14
1149	CB	TYR	A	147	-78.543	-9.492	112.673	1.00	42.05
1150	CG	TYR	A	147	-77.167	-9.807	113.182	1.00	42.83
1151	CD1	TYR	A	147	-76.996	-10.422	114.421	1.00	42.89
1152	CE1	TYR	A	147	-75.741	-10.711	114.909	1.00	42.52
1153	CZ	TYR	A	147	-74.634	-10.393	114.161	1.00	42.62
1154	OH	TYR	A	147	-73.397	-10.697	114.656	1.00	41.49
1155	CE2	TYR	A	147	-74.772	-9.784	112.916	1.00	42.72
1156	CD2	TYR	A	147	-76.035	-9.492	112.438	1.00	42.13
1157	C	TYR	A	147	-80.768	-10.329	112.039	1.00	42.99
1158	O	TYR	A	147	-81.113	-9.685	111.052	1.00	42.95
1159	N	VAL	A	148	-81.606	-10.688	113.011	1.00	44.06
1160	CA	VAL	A	148	-83.022	-10.336	112.944	1.00	45.14
1161	CB	VAL	A	148	-83.903	-11.584	112.949	1.00	45.03
1162	CG1	VAL	A	148	-85.360	-11.205	113.031	1.00	45.30
1163	CG2	VAL	A	148	-83.637	-12.414	111.698	1.00	45.09

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**FIGURE 3W**

A	B	C	D	E	F	G	H	I	J
1164	C	VAL	A	148	-83.429	-9.390	114.073	1.00	46.07
1165	O	VAL	A	148	-83.252	-9.689	115.258	1.00	46.32
1166	N	LYS	A	149	-83.957	-8.233	113.690	1.00	47.01
1167	CA	LYS	A	149	-84.401	-7.228	114.645	1.00	47.78
1168	CB	LYS	A	149	-83.814	-5.867	114.271	1.00	47.98
1169	CG	LYS	A	149	-83.796	-4.834	115.386	1.00	48.59
1170	CD	LYS	A	149	-83.370	-3.461	114.882	1.00	48.37
1171	CE	LYS	A	149	-81.886	-3.244	115.044	1.00	48.67
1172	NZ	LYS	A	149	-81.544	-3.000	116.472	1.00	50.63
1173	C	LYS	A	149	-85.925	-7.200	114.613	1.00	48.43
1174	O	LYS	A	149	-86.530	-6.861	113.594	1.00	48.72
1175	N	ILE	A	150	-86.544	-7.578	115.727	1.00	49.09
1176	CA	ILE	A	150	-88.001	-7.667	115.830	1.00	49.77
1177	CB	ILE	A	150	-88.382	-8.423	117.097	1.00	50.25
1178	CG1	ILE	A	150	-87.736	-7.754	118.326	1.00	51.20
1179	CD1	ILE	A	150	-86.195	-7.767	118.325	1.00	51.77
1180	CG2	ILE	A	150	-87.976	-9.892	116.978	1.00	50.25
1181	C	ILE	A	150	-88.671	-6.312	115.862	1.00	49.79
1182	O	ILE	A	150	-89.735	-6.119	115.283	1.00	49.84
1183	N	GLU	A	151	-88.046	-5.390	116.577	1.00	50.04
1184	CA	GLU	A	151	-88.513	-4.023	116.697	1.00	50.13
1185	CB	GLU	A	151	-89.149	-3.780	118.071	1.00	50.27
1186	CG	GLU	A	151	-90.371	-4.640	118.362	1.00	49.88
1187	CD	GLU	A	151	-91.618	-4.118	117.678	1.00	49.38
1188	OE1	GLU	A	151	-91.578	-2.989	117.156	1.00	48.43
1189	OE2	GLU	A	151	-92.644	-4.827	117.676	1.00	49.86
1190	C	GLU	A	151	-87.254	-3.202	116.564	1.00	50.33
1191	O	GLU	A	151	-86.206	-3.577	117.077	1.00	50.83
1192	N	PRO	A	152	-87.341	-2.097	115.853	1.00	50.40
1193	CA	PRO	A	152	-86.184	-1.246	115.624	1.00	50.75
1194	CB	PRO	A	152	-86.816	0.029	115.089	1.00	50.38
1195	CG	PRO	A	152	-87.986	-0.456	114.360	1.00	50.14
1196	CD	PRO	A	152	-88.545	-1.586	115.181	1.00	50.32
1197	C	PRO	A	152	-85.340	-0.953	116.859	1.00	51.47
1198	O	PRO	A	152	-84.134	-0.773	116.705	1.00	51.55
1199	N	ASN	A	153	-85.933	-0.918	118.052	1.00	52.26
1200	CA	ASN	A	153	-85.167	-0.520	119.237	1.00	53.02
1201	CB	ASN	A	153	-85.897	0.580	120.019	1.00	53.29
1202	CG	ASN	A	153	-87.350	0.223	120.327	1.00	54.92
1203	OD1	ASN	A	153	-88.248	1.060	120.183	1.00	56.44
1204	ND2	ASN	A	153	-87.589	-1.019	120.753	1.00	55.59
1205	C	ASN	A	153	-84.745	-1.637	120.175	1.00	53.24
1206	O	ASN	A	153	-84.162	-1.387	121.234	1.00	53.24
1207	N	LEU	A	154	-85.026	-2.873	119.784	1.00	53.27
1208	CA	LEU	A	154	-84.684	-4.013	120.619	1.00	53.55
1209	CB	LEU	A	154	-85.835	-5.017	120.614	1.00	53.63
1210	CG	LEU	A	154	-87.104	-4.552	121.334	1.00	55.32
1211	CD1	LEU	A	154	-88.244	-5.555	121.183	1.00	56.83
1212	CD2	LEU	A	154	-86.812	-4.308	122.813	1.00	56.74
1213	C	LEU	A	154	-83.387	-4.689	120.181	1.00	53.55
1214	O	LEU	A	154	-82.923	-4.518	119.049	1.00	53.67

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**FIGURE 3X**

A	B	C	D	E	F	G	H	I	J
1215	N	PRO	A	155	-82.770	-5.433	121.088	1.00	53.45
1216	CA	PRO	A	155	-81.600	-6.227	120.719	1.00	53.26
1217	CB	PRO	A	155	-81.416	-7.150	121.928	1.00	53.35
1218	CG	PRO	A	155	-82.698	-6.991	122.707	1.00	53.64
1219	CD	PRO	A	155	-83.076	-5.551	122.521	1.00	53.41
1220	C	PRO	A	155	-81.952	-7.036	119.483	1.00	52.99
1221	O	PRO	A	155	-83.128	-7.328	119.260	1.00	53.22
1222	N	SER	A	156	-80.964	-7.378	118.673	1.00	52.22
1223	CA	SER	A	156	-81.253	-8.170	117.498	1.00	51.46
1224	CB	SER	A	156	-80.487	-7.649	116.283	1.00	51.35
1225	OG	SER	A	156	-79.093	-7.686	116.501	1.00	51.78
1226	C	SER	A	156	-80.888	-9.603	117.802	1.00	51.06
1227	O	SER	A	156	-80.056	-9.871	118.665	1.00	51.10
1228	N	TYR	A	157	-81.536	-10.530	117.116	1.00	50.44
1229	CA	TYR	A	157	-81.215	-11.924	117.298	1.00	50.17
1230	CB	TYR	A	157	-82.462	-12.773	117.148	1.00	50.52
1231	CG	TYR	A	157	-83.544	-12.452	118.145	1.00	51.11
1232	CD1	TYR	A	157	-83.633	-13.140	119.352	1.00	52.56
1233	CE1	TYR	A	157	-84.636	-12.856	120.259	1.00	53.17
1234	CZ	TYR	A	157	-85.561	-11.867	119.964	1.00	53.50
1235	OH	TYR	A	157	-86.574	-11.553	120.858	1.00	52.91
1236	CE2	TYR	A	157	-85.479	-11.182	118.768	1.00	52.57
1237	CD2	TYR	A	157	-84.484	-11.474	117.876	1.00	51.02
1238	C	TYR	A	157	-80.185	-12.321	116.258	1.00	49.68
1239	O	TYR	A	157	-80.292	-11.948	115.089	1.00	50.00
1240	N	ARG	A	158	-79.183	-13.070	116.694	1.00	48.95
1241	CA	ARG	A	158	-78.107	-13.512	115.824	1.00	48.21
1242	CB	ARG	A	158	-76.844	-13.680	116.663	1.00	48.35
1243	CG	ARG	A	158	-75.588	-13.015	116.132	1.00	49.45
1244	CD	ARG	A	158	-74.655	-13.936	115.375	1.00	51.05
1245	NE	ARG	A	158	-73.256	-13.578	115.577	1.00	52.28
1246	CZ	ARG	A	158	-72.238	-14.324	115.177	1.00	52.78
1247	NH1	ARG	A	158	-72.468	-15.459	114.543	1.00	53.84
1248	NH2	ARG	A	158	-70.992	-13.941	115.402	1.00	52.41
1249	C	ARG	A	158	-78.518	-14.870	115.261	1.00	47.44
1250	O	ARG	A	158	-78.593	-15.854	116.005	1.00	47.08
1251	N	ILE	A	159	-78.798	-14.938	113.961	1.00	46.07
1252	CA	ILE	A	159	-79.180	-16.224	113.376	1.00	44.90
1253	CB	ILE	A	159	-80.110	-16.066	112.158	1.00	45.17
1254	CG1	ILE	A	159	-81.435	-15.453	112.585	1.00	46.03
1255	CD1	ILE	A	159	-81.317	-14.038	113.009	1.00	47.93
1256	CG2	ILE	A	159	-80.395	-17.423	111.531	1.00	44.66
1257	C	ILE	A	159	-78.000	-17.117	113.031	1.00	43.77
1258	O	ILE	A	159	-78.067	-18.313	113.256	1.00	43.48
1259	N	THR	A	160	-76.917	-16.555	112.497	1.00	42.82
1260	CA	THR	A	160	-75.777	-17.395	112.119	1.00	41.89
1261	CB	THR	A	160	-75.548	-17.427	110.570	1.00	41.94
1262	OG1	THR	A	160	-75.171	-16.126	110.080	1.00	40.16
1263	CG2	THR	A	160	-76.847	-17.747	109.846	1.00	41.17
1264	C	THR	A	160	-74.494	-17.034	112.825	1.00	42.02
1265	O	THR	A	160	-74.229	-15.873	113.123	1.00	41.74

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**FIGURE 3Y**

A	B	C	D	E	F	G	H	I	J
1266	N	TRP	A	161	-73.685	-18.049	113.070	1.00	42.13
1267	CA	TRP	A	161	-72.431	-17.864	113.757	1.00	42.46
1268	CB	TRP	A	161	-72.458	-18.640	115.066	1.00	42.91
1269	CG	TRP	A	161	-73.561	-18.191	115.971	1.00	44.48
1270	CD1	TRP	A	161	-74.871	-18.537	115.890	1.00	44.57
1271	NE1	TRP	A	161	-73.586	-17.916	116.885	1.00	46.73
1272	CE2	TRP	A	161	-74.736	-17.139	117.628	1.00	46.56
1273	CD2	TRP	A	161	-73.451	-17.286	117.077	1.00	45.80
1274	CE3	TRP	A	161	-72.389	-16.594	117.667	1.00	47.87
1275	CZ3	TRP	A	161	-72.643	-15.789	118.782	1.00	49.17
1276	CH2	TRP	A	161	-73.938	-15.665	119.301	1.00	48.33
1277	CZ2	TRP	A	161	-74.993	-16.332	118.740	1.00	47.92
1278	C	TRP	A	161	-71.286	-18.347	112.890	1.00	42.59
1279	O	TRP	A	161	-70.146	-18.424	113.348	1.00	42.82
1280	N	THR	A	162	-71.579	-18.648	111.628	1.00	42.13
1281	CA	THR	A	162	-70.557	-19.189	110.741	1.00	42.09
1282	CB	THR	A	162	-71.126	-20.358	109.952	1.00	42.15
1283	OG1	THR	A	162	-72.351	-19.961	109.317	1.00	41.11
1284	CG2	THR	A	162	-71.548	-21.460	110.933	1.00	41.82
1285	C	THR	A	162	-69.919	-18.173	109.806	1.00	42.26
1286	O	THR	A	162	-68.869	-18.436	109.230	1.00	42.12
1287	N	GLY	A	163	-70.537	-17.006	109.672	1.00	42.24
1288	CA	GLY	A	163	-69.990	-15.978	108.806	1.00	42.31
1289	C	GLY	A	163	-68.489	-15.837	108.924	1.00	42.51
1290	O	GLY	A	163	-67.924	-15.969	110.006	1.00	42.49
1291	N	LYS	A	164	-67.834	-15.565	107.802	1.00	42.68
1292	CA	LYS	A	164	-66.386	-15.370	107.790	1.00	42.76
1293	CB	LYS	A	164	-65.663	-16.688	108.049	1.00	42.94
1294	CG	LYS	A	164	-64.159	-16.547	108.226	1.00	44.49
1295	CD	LYS	A	164	-63.494	-17.917	108.351	1.00	46.77
1296	CE	LYS	A	164	-61.994	-17.787	108.548	1.00	49.88
1297	NZ	LYS	A	164	-61.363	-19.118	108.757	1.00	51.18
1298	C	LYS	A	164	-65.932	-14.762	106.464	1.00	42.70
1299	O	LYS	A	164	-66.209	-15.307	105.383	1.00	42.37
1300	N	GLU	A	165	-65.232	-13.635	106.560	1.00	42.30
1301	CA	GLU	A	165	-64.758	-12.920	105.387	1.00	42.55
1302	CB	GLU	A	165	-63.728	-11.860	105.775	1.00	43.00
1303	CG	GLU	A	165	-63.508	-10.805	104.693	1.00	47.10
1304	CD	GLU	A	165	-63.223	-9.423	105.267	1.00	51.85
1305	OE1	GLU	A	165	-62.996	-9.330	106.500	1.00	53.85
1306	OE2	GLU	A	165	-63.240	-8.431	104.492	1.00	52.18
1307	C	GLU	A	165	-64.212	-13.844	104.289	1.00	41.45
1308	O	GLU	A	165	-63.462	-14.780	104.562	1.00	41.15
1309	N	ASN	A	166	-64.638	-13.582	103.055	1.00	40.25
1310	CA	ASN	A	166	-64.195	-14.322	101.869	1.00	39.54
1311	CB	ASN	A	166	-62.725	-14.021	101.543	1.00	39.34
1312	CG	ASN	A	166	-62.453	-12.559	101.326	1.00	39.10
1313	OD1	ASN	A	166	-63.322	-11.806	100.916	1.00	38.31
1314	ND2	ASN	A	166	-61.224	-12.144	101.610	1.00	40.98
1315	C	ASN	A	166	-64.339	-15.836	101.932	1.00	39.07
1316	O	ASN	A	166	-63.831	-16.536	101.052	1.00	39.78



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**FIGURE 3Z**

A	B	C	D	E	F	G	H	I	J
1317	N	ILE	A	167	-64.993	-16.358	102.960	1.00	38.18
1318	CA	ILE	A	167	-65.041	-17.803	103.129	1.00	37.29
1319	CB	ILE	A	167	-64.205	-18.247	104.321	1.00	37.48
1320	CG1	ILE	A	167	-62.734	-18.297	103.934	1.00	38.20
1321	CD1	ILE	A	167	-62.063	-16.953	103.935	1.00	41.85
1322	CG2	ILE	A	167	-64.622	-19.638	104.744	1.00	37.49
1323	C	ILE	A	167	-66.441	-18.335	103.276	1.00	36.51
1324	O	ILE	A	167	-66.846	-19.231	102.536	1.00	36.19
1325	N	ILE	A	168	-67.175	-17.838	104.266	1.00	35.61
1326	CA	ILE	A	168	-68.563	-18.251	104.349	1.00	34.54
1327	CB	ILE	A	168	-68.861	-19.320	105.445	1.00	34.98
1328	CG1	ILE	A	168	-69.842	-18.813	106.473	1.00	35.52
1329	CD1	ILE	A	168	-70.844	-19.872	106.786	1.00	38.17
1330	CG2	ILE	A	168	-67.613	-20.007	106.017	1.00	34.24
1331	C	ILE	A	168	-69.510	-17.076	104.402	1.00	33.59
1332	O	ILE	A	168	-69.306	-16.113	105.148	1.00	33.42
1333	N	TYR	A	169	-70.536	-17.145	103.566	1.00	32.42
1334	CA	TYR	A	169	-71.483	-16.057	103.451	1.00	31.27
1335	CB	TYR	A	169	-71.541	-15.535	102.006	1.00	31.08
1336	CG	TYR	A	169	-70.223	-15.218	101.327	1.00	29.82
1337	CD1	TYR	A	169	-69.321	-16.224	100.988	1.00	29.95
1338	CE1	TYR	A	169	-68.132	-15.930	100.344	1.00	26.98
1339	CZ	TYR	A	169	-67.838	-14.623	100.024	1.00	26.49
1340	OH	TYR	A	169	-66.654	-14.309	99.401	1.00	26.74
1341	CE2	TYR	A	169	-68.709	-13.619	100.329	1.00	26.91
1342	CD2	TYR	A	169	-69.901	-13.915	100.976	1.00	28.85
1343	C	TYR	A	169	-72.867	-16.542	103.833	1.00	31.21
1344	O	TYR	A	169	-73.436	-17.402	103.150	1.00	31.35
1345	N	ASN	A	170	-73.425	-15.995	104.910	1.00	30.37
1346	CA	ASN	A	170	-74.810	-16.300	105.252	1.00	29.55
1347	CB	ASN	A	170	-74.973	-16.591	106.741	1.00	29.56
1348	CG	ASN	A	170	-74.100	-17.721	107.210	1.00	30.27
1349	OD1	ASN	A	170	-74.377	-18.895	106.942	1.00	33.44
1350	ND2	ASN	A	170	-73.017	-17.382	107.883	1.00	27.98
1351	C	ASN	A	170	-75.643	-15.088	104.871	1.00	29.05
1352	O	ASN	A	170	-75.271	-13.982	105.169	1.00	28.88
1353	N	GLY	A	171	-76.755	-15.294	104.178	1.00	28.81
1354	CA	GLY	A	171	-77.619	-14.191	103.819	1.00	27.99
1355	C	GLY	A	171	-77.125	-13.255	102.730	1.00	27.59
1356	O	GLY	A	171	-77.851	-12.359	102.329	1.00	27.39
1357	N	ILE	A	172	-75.892	-13.443	102.270	1.00	27.17
1358	CA	ILE	A	172	-75.353	-12.650	101.167	1.00	26.43
1359	CB	ILE	A	172	-74.426	-11.503	101.670	1.00	26.40
1360	CG1	ILE	A	172	-73.386	-12.055	102.647	1.00	25.64
1361	CD1	ILE	A	172	-72.402	-11.015	103.223	1.00	26.18
1362	CG2	ILE	A	172	-75.255	-10.351	102.259	1.00	24.00
1363	C	ILE	A	172	-74.591	-13.559	100.199	1.00	26.31
1364	O	ILE	A	172	-74.102	-14.608	100.599	1.00	26.82
1365	N	THR	A	173	-74.482	-13.137	98.946	1.00	25.63
1366	CA	THR	A	173	-73.808	-13.911	97.909	1.00	25.74
1367	CB	THR	A	173	-74.403	-13.579	96.500	1.00	25.82

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**FIGURE 3AA**

A	B	C	D	E	F	G	H	I	J
1368	OG1	THR	A	173	-74.590	-12.161	96.348	1.00	25.46
1369	CG2	THR	A	173	-75.815	-14.126	96.355	1.00	26.31
1370	C	THR	A	173	-72.316	-13.633	97.848	1.00	25.51
1371	O	THR	A	173	-71.849	-12.581	98.293	1.00	25.26
1372	N	ASP	A	174	-71.564	-14.579	97.286	1.00	24.69
1373	CA	ASP	A	174	-70.169	-14.323	96.987	1.00	23.44
1374	CB	ASP	A	174	-69.342	-15.601	97.037	1.00	23.91
1375	CG	ASP	A	174	-69.644	-16.559	95.889	1.00	23.96
1376	OD1	ASP	A	174	-68.810	-17.441	95.624	1.00	24.39
1377	OD2	ASP	A	174	-70.665	-16.512	95.188	1.00	24.49
1378	C	ASP	A	174	-70.157	-13.671	95.586	1.00	23.53
1379	O	ASP	A	174	-71.220	-13.371	95.010	1.00	22.50
1380	N	TRP	A	175	-68.971	-13.451	95.044	1.00	22.89
1381	CA	TRP	A	175	-68.836	-12.761	93.777	1.00	23.07
1382	CB	TRP	A	175	-67.351	-12.556	93.392	1.00	22.86
1383	CG	TRP	A	175	-67.240	-11.574	92.296	1.00	22.35
1384	CD1	TRP	A	175	-66.973	-10.237	92.411	1.00	21.88
1385	NE1	TRP	A	175	-66.983	-9.645	91.174	1.00	19.08
1386	CE2	TRP	A	175	-67.287	-10.589	90.234	1.00	20.41
1387	CD2	TRP	A	175	-67.452	-11.819	90.909	1.00	20.68
1388	CE3	TRP	A	175	-67.762	-12.958	90.158	1.00	19.38
1389	CZ3	TRP	A	175	-67.904	-12.840	88.789	1.00	18.17
1390	CH2	TRP	A	175	-67.739	-11.602	88.152	1.00	18.32
1391	CZ2	TRP	A	175	-67.442	-10.465	88.860	1.00	19.82
1392	C	TRP	A	175	-69.674	-13.335	92.629	1.00	23.58
1393	O	TRP	A	175	-70.501	-12.615	92.045	1.00	23.56
1394	N	VAL	A	176	-69.508	-14.620	92.305	1.00	24.17
1395	CA	VAL	A	176	-70.285	-15.171	91.183	1.00	24.60
1396	CB	VAL	A	176	-69.889	-16.608	90.758	1.00	24.92
1397	CG1	VAL	A	176	-69.363	-17.391	91.915	1.00	24.13
1398	CG2	VAL	A	176	-68.944	-16.592	89.570	1.00	26.39
1399	C	VAL	A	176	-71.778	-15.246	91.421	1.00	24.61
1400	O	VAL	A	176	-72.561	-15.120	90.497	1.00	24.85
1401	N	TYR	A	177	-72.192	-15.527	92.636	1.00	24.68
1402	CA	TYR	A	177	-73.620	-15.614	92.844	1.00	24.97
1403	CB	TYR	A	177	-73.935	-16.238	94.186	1.00	24.65
1404	CG	TYR	A	177	-74.217	-17.728	94.115	1.00	25.96
1405	CD1	TYR	A	177	-73.194	-18.654	94.217	1.00	23.76
1406	CE1	TYR	A	177	-73.452	-19.996	94.189	1.00	24.52
1407	CZ	TYR	A	177	-74.742	-20.445	94.054	1.00	25.24
1408	OH	TYR	A	177	-74.997	-21.797	94.034	1.00	25.72
1409	CE2	TYR	A	177	-75.781	-19.557	93.946	1.00	25.19
1410	CD2	TYR	A	177	-75.517	-18.201	93.976	1.00	25.89
1411	C	TYR	A	177	-74.233	-14.242	92.703	1.00	25.10
1412	O	TYR	A	177	-75.323	-14.097	92.154	1.00	25.83
1413	N	GLU	A	178	-73.519	-13.224	93.173	1.00	25.59
1414	CA	GLU	A	178	-73.982	-11.850	93.002	1.00	25.82
1415	CB	GLU	A	178	-73.100	-10.862	93.757	1.00	25.04
1416	CG	GLU	A	178	-73.480	-9.422	93.474	1.00	24.82
1417	CD	GLU	A	178	-72.587	-8.419	94.194	1.00	25.14
1418	OE1	GLU	A	178	-72.633	-7.241	93.826	1.00	24.27

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**FIGURE 3AB**

A	B	C	D	E	F	G	H	I	J
1419	OE2	GLU	A	178	-71.830	-8.803	95.113	1.00	24.44
1420	C	GLU	A	178	-74.012	-11.430	91.538	1.00	25.79
1421	O	GLU	A	178	-74.999	-10.894	91.055	1.00	26.81
1422	N	GLU	A	179	-72.929	-11.647	90.821	1.00	25.86
1423	CA	GLU	A	179	-72.913	-11.152	89.459	1.00	26.21
1424	CB	GLU	A	179	-71.483	-10.862	88.991	1.00	26.17
1425	CG	GLU	A	179	-71.346	-10.505	87.515	1.00	27.12
1426	CD	GLU	A	179	-71.966	-9.156	87.159	1.00	27.41
1427	OE1	GLU	A	179	-72.110	-8.862	85.957	1.00	29.41
1428	OE2	GLU	A	179	-72.289	-8.374	88.072	1.00	26.56
1429	C	GLU	A	179	-73.640	-12.048	88.466	1.00	26.94
1430	O	GLU	A	179	-74.304	-11.546	87.578	1.00	26.77
1431	N	GLU	A	180	-73.576	-13.363	88.651	1.00	27.47
1432	CA	GLU	A	180	-74.085	-14.253	87.624	1.00	29.07
1433	CB	GLU	A	180	-72.977	-15.211	87.157	1.00	28.09
1434	CG	GLU	A	180	-71.662	-14.511	86.822	1.00	27.82
1435	CD	GLU	A	180	-71.669	-13.738	85.506	1.00	26.85
1436	OE1	GLU	A	180	-72.753	-13.533	84.925	1.00	24.69
1437	OE2	GLU	A	180	-70.562	-13.360	85.039	1.00	27.42
1438	C	GLU	A	180	-75.377	-15.015	87.888	1.00	30.75
1439	O	GLU	A	180	-76.032	-15.435	86.936	1.00	30.84
1440	N	VAL	A	181	-75.753	-15.198	89.151	1.00	32.95
1441	CA	VAL	A	181	-76.956	-15.972	89.473	1.00	34.49
1442	CB	VAL	A	181	-76.643	-17.107	90.469	1.00	34.94
1443	CG1	VAL	A	181	-77.863	-17.989	90.671	1.00	33.86
1444	CG2	VAL	A	181	-75.417	-17.922	90.015	1.00	33.28
1445	C	VAL	A	181	-78.122	-15.150	90.030	1.00	36.05
1446	O	VAL	A	181	-79.203	-15.131	89.455	1.00	37.26
1447	N	PHE	A	182	-77.931	-14.484	91.158	1.00	37.27
1448	CA	PHE	A	182	-79.033	-13.720	91.749	1.00	37.97
1449	CB	PHE	A	182	-78.914	-13.713	93.277	1.00	38.33
1450	CG	PHE	A	182	-78.971	-15.084	93.908	1.00	39.37
1451	CD1	PHE	A	182	-79.625	-16.123	93.290	1.00	40.82
1452	CE1	PHE	A	182	-79.679	-17.376	93.870	1.00	41.48
1453	CZ	PHE	A	182	-79.078	-17.596	95.069	1.00	42.11
1454	CE2	PHE	A	182	-78.422	-16.561	95.709	1.00	42.27
1455	CD2	PHE	A	182	-78.376	-15.317	95.129	1.00	40.99
1456	C	PHE	A	182	-79.151	-12.266	91.271	1.00	38.47
1457	O	PHE	A	182	-80.187	-11.625	91.506	1.00	38.87
1458	N	SER	A	183	-78.106	-11.743	90.617	1.00	38.34
1459	CA	SER	A	183	-78.064	-10.332	90.246	1.00	37.82
1460	CB	SER	A	183	-78.957	-10.014	89.052	1.00	37.51
1461	OG	SER	A	183	-78.362	-10.464	87.848	1.00	37.83
1462	C	SER	A	183	-78.467	-9.503	91.451	1.00	37.91
1463	O	SER	A	183	-79.187	-8.506	91.341	1.00	38.19
1464	N	ALA	A	184	-77.983	-9.927	92.607	1.00	37.60
1465	CA	ALA	A	184	-78.254	-9.236	93.842	1.00	37.80
1466	CB	ALA	A	184	-79.644	-9.581	94.334	1.00	38.33
1467	C	ALA	A	184	-77.231	-9.657	94.862	1.00	37.85
1468	O	ALA	A	184	-76.565	-10.681	94.708	1.00	38.07
1469	N	TYR	A	185	-77.111	-8.853	95.908	1.00	37.60

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**FIGURE 3AC**

A	B	C	D	E	F	G	H	I	J
1470	CA	TYR	A	185	-76.203	-9.141	96.993	1.00	37.56
1471	CB	TYR	A	185	-75.737	-7.841	97.642	1.00	37.53
1472	CG	TYR	A	185	-74.558	-7.975	98.566	1.00	37.51
1473	CD1	TYR	A	185	-74.288	-6.999	99.521	1.00	37.76
1474	CE1	TYR	A	185	-73.190	-7.101	100.356	1.00	37.08
1475	CZ	TYR	A	185	-72.363	-8.181	100.256	1.00	37.06
1476	OH	TYR	A	185	-71.271	-8.278	101.094	1.00	38.04
1477	CE2	TYR	A	185	-72.610	-9.166	99.323	1.00	35.91
1478	CD2	TYR	A	185	-73.701	-9.058	98.484	1.00	36.85
1479	C	TYR	A	185	-76.889	-9.999	98.036	1.00	37.49
1480	O	TYR	A	185	-76.252	-10.862	98.651	1.00	37.79
1481	N	SER	A	186	-78.184	-9.776	98.238	1.00	37.29
1482	CA	SER	A	186	-78.888	-10.505	99.290	1.00	37.19
1483	CB	SER	A	186	-80.144	-9.775	99.744	1.00	36.89
1484	OG	SER	A	186	-81.125	-9.876	98.752	1.00	37.73
1485	C	SER	A	186	-79.273	-11.900	98.875	1.00	36.64
1486	O	SER	A	186	-79.663	-12.140	97.747	1.00	37.15
1487	N	ALA	A	187	-79.113	-12.812	99.812	1.00	36.04
1488	CA	ALA	A	187	-79.509	-14.190	99.666	1.00	35.72
1489	CB	ALA	A	187	-78.284	-15.085	99.693	1.00	35.34
1490	C	ALA	A	187	-80.409	-14.423	100.885	1.00	35.43
1491	O	ALA	A	187	-80.196	-15.326	101.690	1.00	34.90
1492	N	LEU	A	188	-81.403	-13.549	101.000	1.00	35.76
1493	CA	LEU	A	188	-82.351	-13.517	102.098	1.00	36.19
1494	CB	LEU	A	188	-82.128	-12.250	102.924	1.00	36.90
1495	CG	LEU	A	188	-81.116	-12.343	104.045	1.00	36.81
1496	CD1	LEU	A	188	-81.376	-11.248	105.051	1.00	38.05
1497	CD2	LEU	A	188	-81.318	-13.695	104.665	1.00	37.67
1498	C	LEU	A	188	-83.752	-13.449	101.555	1.00	36.16
1499	O	LEU	A	188	-84.046	-12.606	100.717	1.00	36.37
1500	N	TRP	A	189	-84.643	-14.288	102.060	1.00	36.46
1501	CA	TRP	A	189	-86.019	-14.279	101.560	1.00	36.62
1502	CB	TRP	A	189	-86.216	-15.367	100.495	1.00	36.23
1503	CG	TRP	A	189	-85.307	-15.185	99.351	1.00	34.41
1504	CD1	TRP	A	189	-85.514	-14.389	98.264	1.00	33.31
1505	NE1	TRP	A	189	-84.434	-14.455	97.419	1.00	35.56
1506	CE2	TRP	A	189	-83.496	-15.297	97.965	1.00	35.21
1507	CD2	TRP	A	189	-84.019	-15.772	99.184	1.00	33.94
1508	CE3	TRP	A	189	-83.247	-16.664	99.939	1.00	35.24
1509	CZ3	TRP	A	189	-82.000	-17.047	99.459	1.00	33.38
1510	CH2	TRP	A	189	-81.515	-16.554	98.245	1.00	33.99
1511	CZ2	TRP	A	189	-82.242	-15.678	97.487	1.00	34.09
1512	C	TRP	A	189	-87.063	-14.431	102.657	1.00	37.21
1513	O	TRP	A	189	-87.299	-15.528	103.147	1.00	37.31
1514	N	TRP	A	190	-87.678	-13.314	103.033	1.00	38.06
1515	CA	TRP	A	190	-88.740	-13.310	104.028	1.00	38.71
1516	CB	TRP	A	190	-89.155	-11.879	104.370	1.00	38.83
1517	CG	TRP	A	190	-88.270	-11.103	105.274	1.00	38.32
1518	CD1	TRP	A	190	-87.389	-10.126	104.918	1.00	38.37
1519	NE1	TRP	A	190	-86.765	-9.618	106.031	1.00	38.44
1520	CE2	TRP	A	190	-87.255	-10.254	107.139	1.00	38.85

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**FIGURE 3AD**

A	B	C	D	E	F	G	H	I	J
1521	CD2	TRP	A	190	-88.218	-11.188	106.697	1.00	39.00
1522	CE3	TRP	A	190	-88.875	-11.971	107.648	1.00	38.63
1523	CZ3	TRP	A	190	-88.563	-11.800	108.982	1.00	39.07
1524	CH2	TRP	A	190	-87.600	-10.867	109.387	1.00	39.64
1525	CZ2	TRP	A	190	-86.939	-10.084	108.480	1.00	38.67
1526	C	TRP	A	190	-89.962	-13.958	103.403	1.00	39.34
1527	O	TRP	A	190	-90.298	-13.652	102.260	1.00	38.94
1528	N	SER	A	191	-90.640	-14.825	104.148	1.00	40.07
1529	CA	SER	A	191	-91.901	-15.367	103.671	1.00	40.97
1530	CB	SER	A	191	-92.399	-16.496	104.568	1.00	41.50
1531	OG	SER	A	191	-93.155	-15.990	105.647	1.00	41.74
1532	C	SER	A	191	-92.893	-14.206	103.633	1.00	41.49
1533	O	SER	A	191	-92.733	-13.211	104.335	1.00	41.38
1534	N	PRO	A	192	-93.949	-14.364	102.857	1.00	41.99
1535	CA	PRO	A	192	-94.829	-13.253	102.500	1.00	42.66
1536	CB	PRO	A	192	-96.010	-13.954	101.810	1.00	42.51
1537	CG	PRO	A	192	-95.436	-15.217	101.309	1.00	42.06
1538	CD	PRO	A	192	-94.443	-15.649	102.342	1.00	41.94
1539	C	PRO	A	192	-95.339	-12.481	103.679	1.00	43.23
1540	O	PRO	A	192	-95.655	-11.293	103.555	1.00	43.70
1541	N	ASN	A	193	-95.424	-13.149	104.814	1.00	43.81
1542	CA	ASN	A	193	-96.025	-12.535	105.970	1.00	44.56
1543	CB	ASN	A	193	-97.148	-13.426	106.490	1.00	45.57
1544	CG	ASN	A	193	-96.783	-14.162	107.747	1.00	47.13
1545	OD1	ASN	A	193	-95.624	-14.202	108.170	1.00	46.73
1546	ND2	ASN	A	193	-97.787	-14.735	108.371	1.00	51.47
1547	C	ASN	A	193	-95.042	-12.163	107.065	1.00	44.28
1548	O	ASN	A	193	-95.425	-11.547	108.060	1.00	44.80
1549	N	GLY	A	194	-93.779	-12.534	106.885	1.00	43.59
1550	CA	GLY	A	194	-92.746	-12.158	107.832	1.00	42.90
1551	C	GLY	A	194	-92.365	-13.281	108.767	1.00	42.46
1552	O	GLY	A	194	-91.286	-13.275	109.355	1.00	41.89
1553	N	THR	A	195	-93.255	-14.257	108.894	1.00	42.23
1554	CA	THR	A	195	-93.015	-15.377	109.786	1.00	42.35
1555	CB	THR	A	195	-94.105	-16.441	109.621	1.00	42.51
1556	OG1	THR	A	195	-95.318	-15.985	110.224	1.00	43.31
1557	CG2	THR	A	195	-93.759	-17.663	110.444	1.00	42.51
1558	C	THR	A	195	-91.640	-16.016	109.579	1.00	41.99
1559	O	THR	A	195	-90.813	-16.045	110.492	1.00	41.82
1560	N	PHE	A	196	-91.399	-16.531	108.376	1.00	41.36
1561	CA	PHE	A	196	-90.135	-17.208	108.113	1.00	40.45
1562	CB	PHE	A	196	-90.388	-18.463	107.284	1.00	40.63
1563	CG	PHE	A	196	-91.227	-19.485	107.987	1.00	39.35
1564	CD1	PHE	A	196	-90.738	-20.157	109.089	1.00	38.75
1565	CE1	PHE	A	196	-91.513	-21.096	109.743	1.00	38.83
1566	CZ	PHE	A	196	-92.777	-21.373	109.290	1.00	37.56
1567	CE2	PHE	A	196	-93.272	-20.708	108.199	1.00	36.97
1568	CD2	PHE	A	196	-92.503	-19.767	107.554	1.00	37.96
1569	C	PHE	A	196	-89.125	-16.315	107.411	1.00	39.96
1570	O	PHE	A	196	-89.479	-15.356	106.723	1.00	40.12
1571	N	LEU	A	197	-87.855	-16.610	107.624	1.00	39.33

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**FIGURE 3AE**

A	B	C	D	E	F	G	H	I	J
1572	CA	LEU	A	197	-86.792	-15.921	106.903	1.00	38.31
1573	CB	LEU	A	197	-85.943	-15.070	107.831	1.00	38.53
1574	CG	LEU	A	197	-84.748	-14.388	107.187	1.00	39.02
1575	CD1	LEU	A	197	-84.012	-13.621	108.269	1.00	40.57
1576	CD2	LEU	A	197	-85.194	-13.460	106.068	1.00	39.51
1577	C	LEU	A	197	-85.942	-17.016	106.335	1.00	37.20
1578	O	LEU	A	197	-85.277	-17.719	107.070	1.00	36.63
1579	N	ALA	A	198	-86.012	-17.210	105.029	1.00	36.53
1580	CA	ALA	A	198	-85.174	-18.231	104.416	1.00	35.68
1581	CB	ALA	A	198	-85.896	-18.871	103.250	1.00	35.91
1582	C	ALA	A	198	-83.883	-17.560	103.962	1.00	34.82
1583	O	ALA	A	198	-83.877	-16.369	103.617	1.00	34.28
1584	N	TYR	A	199	-82.780	-18.295	103.991	1.00	33.86
1585	CA	TYR	A	199	-81.533	-17.730	103.485	1.00	33.19
1586	CB	TYR	A	199	-80.798	-16.950	104.571	1.00	32.78
1587	CG	TYR	A	199	-80.354	-17.816	105.727	1.00	33.58
1588	CD1	TYR	A	199	-79.074	-18.358	105.773	1.00	32.56
1589	CE1	TYR	A	199	-78.676	-19.153	106.840	1.00	32.70
1590	CZ	TYR	A	199	-79.566	-19.409	107.867	1.00	32.39
1591	OH	TYR	A	199	-79.204	-20.197	108.935	1.00	33.54
1592	CE2	TYR	A	199	-80.820	-18.882	107.842	1.00	32.58
1593	CD2	TYR	A	199	-81.216	-18.090	106.779	1.00	33.74
1594	C	TYR	A	199	-80.640	-18.805	102.898	1.00	32.53
1595	O	TYR	A	199	-80.836	-19.979	103.157	1.00	32.66
1596	N	ALA	A	200	-79.655	-18.390	102.102	1.00	32.28
1597	CA	ALA	A	200	-78.700	-19.319	101.509	1.00	31.66
1598	CB	ALA	A	200	-78.590	-19.102	99.985	1.00	31.58
1599	C	ALA	A	200	-77.371	-19.096	102.156	1.00	31.10
1600	O	ALA	A	200	-77.051	-17.982	102.512	1.00	31.98
1601	N	GLN	A	201	-76.586	-20.147	102.318	1.00	30.82
1602	CA	GLN	A	201	-75.253	-19.974	102.864	1.00	30.37
1603	CB	GLN	A	201	-75.065	-20.810	104.109	1.00	30.06
1604	CG	GLN	A	201	-73.659	-20.886	104.511	1.00	29.92
1605	CD	GLN	A	201	-73.433	-21.897	105.590	1.00	32.22
1606	OE1	GLN	A	201	-73.089	-23.034	105.299	1.00	32.66
1607	NE2	GLN	A	201	-73.616	-21.487	106.852	1.00	31.05
1608	C	GLN	A	201	-74.232	-20.391	101.826	1.00	30.16
1609	O	GLN	A	201	-74.350	-21.462	101.244	1.00	30.15
1610	N	PHE	A	202	-73.223	-19.555	101.613	1.00	30.02
1611	CA	PHE	A	202	-72.236	-19.831	100.581	1.00	30.30
1612	CB	PHE	A	202	-72.135	-18.655	99.600	1.00	29.91
1613	CG	PHE	A	202	-73.389	-18.412	98.844	1.00	28.40
1614	CD1	PHE	A	202	-73.806	-19.310	97.870	1.00	26.83
1615	CE1	PHE	A	202	-74.966	-19.103	97.177	1.00	25.09
1616	CZ	PHE	A	202	-75.732	-18.000	97.447	1.00	26.35
1617	CE2	PHE	A	202	-75.338	-17.100	98.439	1.00	26.18
1618	CD2	PHE	A	202	-74.175	-17.312	99.124	1.00	27.09
1619	C	PHE	A	202	-70.878	-20.118	101.165	1.00	30.53
1620	O	PHE	A	202	-70.402	-19.384	102.030	1.00	30.67
1621	N	ASN	A	203	-70.247	-21.173	100.656	1.00	30.49
1622	CA	ASN	A	203	-68.937	-21.597	101.129	1.00	30.96

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**FIGURE 3AF**

A	B	C	D	E	F	G	H	I	J
1623	CB	ASN	A	203	-69.048	-23.008	101.735	1.00	31.11
1624	CG	ASN	A	203	-67.778	-23.455	102.411	1.00	31.34
1625	OD1	ASN	A	203	-66.727	-22.836	102.238	1.00	31.57
1626	ND2	ASN	A	203	-67.860	-24.543	103.180	1.00	34.70
1627	C	ASN	A	203	-67.894	-21.556	100.008	1.00	30.82
1628	O	ASN	A	203	-67.928	-22.369	99.081	1.00	30.86
1629	N	ASP	A	204	-66.972	-20.611	100.102	1.00	30.71
1630	CA	ASP	A	204	-65.942	-20.417	99.088	1.00	31.08
1631	CB	ASP	A	204	-65.862	-18.950	98.716	1.00	31.03
1632	CG	ASP	A	204	-67.066	-18.504	97.961	1.00	31.81
1633	OD1	ASP	A	204	-68.174	-18.922	98.345	1.00	33.00
1634	OD2	ASP	A	204	-67.007	-17.763	96.966	1.00	34.30
1635	C	ASP	A	204	-64.579	-20.874	99.524	1.00	31.17
1636	O	ASP	A	204	-63.573	-20.516	98.927	1.00	31.18
1637	N	THR	A	205	-64.545	-21.682	100.569	1.00	31.79
1638	CA	THR	A	205	-63.289	-22.139	101.113	1.00	31.97
1639	CB	THR	A	205	-63.538	-23.277	102.077	1.00	32.32
1640	OG1	THR	A	205	-64.383	-22.792	103.118	1.00	32.88
1641	CG2	THR	A	205	-62.241	-23.640	102.806	1.00	32.65
1642	C	THR	A	205	-62.236	-22.536	100.084	1.00	31.74
1643	O	THR	A	205	-61.082	-22.117	100.203	1.00	31.95
1644	N	GLU	A	206	-62.602	-23.335	99.088	1.00	31.47
1645	CA	GLU	A	206	-61.583	-23.766	98.125	1.00	31.78
1646	CB	GLU	A	206	-61.602	-25.289	97.923	1.00	32.33
1647	CG	GLU	A	206	-61.422	-26.118	99.188	1.00	35.48
1648	CD	GLU	A	206	-61.709	-27.596	98.948	1.00	41.10
1649	OE1	GLU	A	206	-60.726	-28.382	98.864	1.00	42.82
1650	OE2	GLU	A	206	-62.907	-27.972	98.817	1.00	40.88
1651	C	GLU	A	206	-61.714	-23.058	96.781	1.00	30.95
1652	O	GLU	A	206	-61.169	-23.514	95.774	1.00	30.73
1653	N	VAL	A	207	-62.440	-21.949	96.767	1.00	29.81
1654	CA	VAL	A	207	-62.572	-21.166	95.552	1.00	29.59
1655	CB	VAL	A	207	-63.826	-20.298	95.613	1.00	29.22
1656	CG1	VAL	A	207	-63.909	-19.353	94.413	1.00	28.22
1657	CG2	VAL	A	207	-65.038	-21.200	95.693	1.00	28.87
1658	C	VAL	A	207	-61.314	-20.333	95.427	1.00	29.48
1659	O	VAL	A	207	-60.923	-19.681	96.375	1.00	30.00
1660	N	PRO	A	208	-60.639	-20.406	94.289	1.00	29.75
1661	CA	PRO	A	208	-59.374	-19.669	94.092	1.00	29.54
1662	CB	PRO	A	208	-58.871	-20.156	92.724	1.00	29.39
1663	CG	PRO	A	208	-59.699	-21.403	92.435	1.00	30.24
1664	CD	PRO	A	208	-61.023	-21.200	93.109	1.00	29.62
1665	C	PRO	A	208	-59.593	-18.166	94.066	1.00	29.18
1666	O	PRO	A	208	-60.687	-17.701	93.796	1.00	29.26
1667	N	LEU	A	209	-58.546	-17.398	94.318	1.00	28.89
1668	CA	LEU	A	209	-58.737	-15.970	94.382	1.00	28.41
1669	CB	LEU	A	209	-58.194	-15.416	95.703	1.00	28.78
1670	CG	LEU	A	209	-59.122	-15.831	96.854	1.00	30.32
1671	CD1	LEU	A	209	-59.365	-14.702	97.815	1.00	32.76
1672	CD2	LEU	A	209	-58.574	-17.040	97.566	1.00	31.36
1673	C	LEU	A	209	-58.105	-15.245	93.231	1.00	27.31

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FIGURE 3AG

A	B	C	D	E	F	G	H	I	J
1674	O	LEU	A	209	-56.957	-15.507	92.907	1.00	28.03
1675	N	ILE	A	210	-58.865	-14.362	92.596	1.00	25.30
1676	CA	ILE	A	210	-58.258	-13.466	91.638	1.00	24.34
1677	CB	ILE	A	210	-59.288	-12.856	90.638	1.00	24.07
1678	CG1	ILE	A	210	-58.602	-11.882	89.681	1.00	22.86
1679	CD1	ILE	A	210	-57.653	-12.506	88.749	1.00	17.11
1680	CG2	ILE	A	210	-60.416	-12.105	91.348	1.00	22.07
1681	C	ILE	A	210	-57.611	-12.379	92.484	1.00	24.74
1682	O	ILE	A	210	-58.214	-11.864	93.471	1.00	24.26
1683	N	GLU	A	211	-56.367	-12.071	92.140	1.00	24.06
1684	CA	GLU	A	211	-55.636	-11.012	92.804	1.00	23.86
1685	CB	GLU	A	211	-54.373	-11.555	93.468	1.00	23.56
1686	CG	GLU	A	211	-54.595	-12.856	94.218	1.00	25.96
1687	CD	GLU	A	211	-53.497	-13.180	95.221	1.00	26.55
1688	OE1	GLU	A	211	-53.806	-13.788	96.242	1.00	29.23
1689	OE2	GLU	A	211	-52.328	-12.837	94.997	1.00	29.08
1690	C	GLU	A	211	-55.236	-9.978	91.769	1.00	23.44
1691	O	GLU	A	211	-54.834	-10.328	90.666	1.00	23.22
1692	N	TYR	A	212	-55.348	-8.708	92.138	1.00	23.21
1693	CA	TYR	A	212	-54.923	-7.615	91.294	1.00	23.31
1694	CB	TYR	A	212	-55.985	-7.259	90.234	1.00	22.86
1695	CG	TYR	A	212	-57.348	-6.961	90.774	1.00	22.22
1696	CD1	TYR	A	212	-57.684	-5.679	91.174	1.00	23.19
1697	CE1	TYR	A	212	-58.916	-5.386	91.671	1.00	21.83
1698	CZ	TYR	A	212	-59.858	-6.368	91.791	1.00	22.04
1699	OH	TYR	A	212	-61.092	-6.029	92.302	1.00	22.37
1700	CE2	TYR	A	212	-59.563	-7.660	91.420	1.00	23.02
1701	CD2	TYR	A	212	-58.301	-7.953	90.910	1.00	22.36
1702	C	TYR	A	212	-54.560	-6.437	92.200	1.00	23.96
1703	O	TYR	A	212	-54.968	-6.388	93.355	1.00	24.35
1704	N	SER	A	213	-53.735	-5.531	91.698	1.00	24.43
1705	CA	SER	A	213	-53.308	-4.386	92.472	1.00	24.97
1706	CB	SER	A	213	-52.023	-3.810	91.898	1.00	24.59
1707	OG	SER	A	213	-51.081	-4.834	91.666	1.00	27.00
1708	C	SER	A	213	-54.350	-3.293	92.445	1.00	25.46
1709	O	SER	A	213	-55.017	-3.073	91.417	1.00	25.74
1710	N	PHE	A	214	-54.484	-2.612	93.581	1.00	25.16
1711	CA	PHE	A	214	-55.314	-1.424	93.686	1.00	25.20
1712	CB	PHE	A	214	-56.482	-1.643	94.650	1.00	24.90
1713	CG	PHE	A	214	-57.523	-0.566	94.571	1.00	25.71
1714	CD1	PHE	A	214	-57.441	0.549	95.390	1.00	24.81
1715	CE1	PHE	A	214	-58.361	1.557	95.302	1.00	25.33
1716	CZ	PHE	A	214	-59.400	1.474	94.396	1.00	25.34
1717	CE2	PHE	A	214	-59.500	0.360	93.564	1.00	25.76
1718	CD2	PHE	A	214	-58.552	-0.641	93.647	1.00	25.42
1719	C	PHE	A	214	-54.356	-0.312	94.145	1.00	25.52
1720	O	PHE	A	214	-53.677	-0.437	95.157	1.00	25.22
1721	N	TYR	A	215	-54.261	0.766	93.385	1.00	25.88
1722	CA	TYR	A	215	-53.219	1.734	93.670	1.00	25.86
1723	CB	TYR	A	215	-52.675	2.327	92.367	1.00	25.83
1724	CG	TYR	A	215	-52.158	1.223	91.478	1.00	25.90



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**FIGURE 3AH**

A	B	C	D	E	F	G	H	I	J
1725	CD1	TYR	A	215	-52.962	0.673	90.474	1.00	24.54
1726	CE1	TYR	A	215	-52.498	-0.363	89.677	1.00	22.91
1727	CZ	TYR	A	215	-51.224	-0.874	89.891	1.00	23.93
1728	OH	TYR	A	215	-50.772	-1.912	89.118	1.00	23.07
1729	CE2	TYR	A	215	-50.412	-0.362	90.891	1.00	22.24
1730	CD2	TYR	A	215	-50.883	0.682	91.676	1.00	23.91
1731	C	TYR	A	215	-53.668	2.785	94.648	1.00	26.58
1732	O	TYR	A	215	-52.848	3.371	95.382	1.00	26.13
1733	N	SER	A	216	-54.975	3.003	94.656	1.00	26.91
1734	CA	SER	A	216	-55.603	3.961	95.541	1.00	28.06
1735	CB	SER	A	216	-55.359	3.596	97.006	1.00	28.14
1736	OG	SER	A	216	-56.333	4.212	97.838	1.00	28.49
1737	C	SER	A	216	-55.136	5.390	95.284	1.00	28.60
1738	O	SER	A	216	-54.522	5.698	94.256	1.00	27.55
1739	N	ASP	A	217	-55.438	6.256	96.245	1.00	29.85
1740	CA	ASP	A	217	-55.048	7.658	96.150	1.00	31.23
1741	CB	ASP	A	217	-55.684	8.468	97.306	1.00	32.03
1742	CG	ASP	A	217	-57.235	8.517	97.212	1.00	36.76
1743	OD1	ASP	A	217	-57.792	8.879	96.126	1.00	37.66
1744	OD2	ASP	A	217	-57.985	8.184	98.171	1.00	41.02
1745	C	ASP	A	217	-53.517	7.768	96.135	1.00	31.09
1746	O	ASP	A	217	-52.792	6.883	96.615	1.00	30.94
1747	N	GLU	A	218	-53.030	8.851	95.564	1.00	31.23
1748	CA	GLU	A	218	-51.600	9.117	95.495	1.00	31.57
1749	CB	GLU	A	218	-51.380	10.515	94.911	1.00	31.79
1750	CG	GLU	A	218	-49.948	10.987	94.981	1.00	34.28
1751	CD	GLU	A	218	-49.771	12.350	94.364	1.00	36.98
1752	OE1	GLU	A	218	-48.607	12.764	94.204	1.00	38.67
1753	OE2	GLU	A	218	-50.792	13.001	94.038	1.00	38.85
1754	C	GLU	A	218	-50.831	8.923	96.823	1.00	31.30
1755	O	GLU	A	218	-49.649	8.593	96.808	1.00	30.88
1756	N	SER	A	219	-51.507	9.105	97.958	1.00	31.27
1757	CA	SER	A	219	-50.917	8.889	99.300	1.00	31.15
1758	CB	SER	A	219	-51.870	9.442	100.363	1.00	31.69
1759	OG	SER	A	219	-52.089	10.817	100.141	1.00	35.63
1760	C	SER	A	219	-50.580	7.447	99.723	1.00	30.25
1761	O	SER	A	219	-49.831	7.254	100.690	1.00	29.72
1762	N	LEU	A	220	-51.176	6.438	99.080	1.00	29.12
1763	CA	LEU	A	220	-50.864	5.051	99.446	1.00	28.25
1764	CB	LEU	A	220	-51.833	4.071	98.791	1.00	27.97
1765	CG	LEU	A	220	-52.445	2.973	99.649	1.00	29.05
1766	CD1	LEU	A	220	-52.744	1.692	98.827	1.00	26.88
1767	CD2	LEU	A	220	-51.643	2.669	100.936	1.00	25.26
1768	C	LEU	A	220	-49.494	4.801	98.856	1.00	27.67
1769	O	LEU	A	220	-49.348	4.774	97.627	1.00	26.93
1770	N	GLN	A	221	-48.487	4.604	99.693	1.00	27.07
1771	CA	GLN	A	221	-47.165	4.439	99.115	1.00	27.05
1772	CB	GLN	A	221	-46.035	4.916	100.051	1.00	26.55
1773	CG	GLN	A	221	-45.174	3.856	100.608	1.00	27.44
1774	CD	GLN	A	221	-44.153	4.353	101.649	1.00	27.15
1775	OE1	GLN	A	221	-44.189	3.907	102.788	1.00	26.51

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**FIGURE 3AI**

A	B	C	D	E	F	G	H	I	J
1776	NE2	GLN	A	221	-43.241	5.233	101.247	1.00	23.19
1777	C	GLN	A	221	-46.963	3.043	98.505	1.00	26.56
1778	O	GLN	A	221	-46.320	2.927	97.479	1.00	26.46
1779	N	TYR	A	222	-47.558	2.016	99.111	1.00	26.45
1780	CA	TYR	A	222	-47.486	0.640	98.598	1.00	26.17
1781	CB	TYR	A	222	-47.095	-0.367	99.687	1.00	25.55
1782	CG	TYR	A	222	-45.625	-0.320	100.069	1.00	26.44
1783	CD1	TYR	A	222	-44.698	-1.208	99.510	1.00	23.84
1784	CE1	TYR	A	222	-43.347	-1.155	99.870	1.00	25.81
1785	CZ	TYR	A	222	-42.927	-0.211	100.802	1.00	25.57
1786	OH	TYR	A	222	-41.604	-0.109	101.163	1.00	25.00
1787	CE2	TYR	A	222	-43.831	0.679	101.350	1.00	25.91
1788	CD2	TYR	A	222	-45.164	0.620	100.994	1.00	26.23
1789	C	TYR	A	222	-48.854	0.235	98.078	1.00	26.17
1790	O	TYR	A	222	-49.843	0.320	98.802	1.00	26.60
1791	N	PRO	A	223	-48.931	-0.186	96.825	1.00	25.52
1792	CA	PRO	A	223	-50.208	-0.638	96.309	1.00	24.97
1793	CB	PRO	A	223	-49.861	-1.139	94.894	1.00	24.57
1794	CG	PRO	A	223	-48.696	-0.323	94.484	1.00	24.47
1795	CD	PRO	A	223	-47.873	-0.199	95.791	1.00	25.38
1796	C	PRO	A	223	-50.736	-1.752	97.186	1.00	24.85
1797	O	PRO	A	223	-49.977	-2.469	97.821	1.00	23.95
1798	N	LYS	A	224	-52.049	-1.890	97.199	1.00	25.28
1799	CA	LYS	A	224	-52.718	-2.944	97.927	1.00	26.38
1800	CB	LYS	A	224	-54.005	-2.404	98.559	1.00	26.73
1801	CG	LYS	A	224	-54.884	-3.505	99.113	1.00	31.45
1802	CD	LYS	A	224	-56.300	-3.033	99.415	1.00	38.45
1803	CE	LYS	A	224	-57.258	-4.231	99.540	1.00	40.77
1804	NZ	LYS	A	224	-58.666	-3.805	99.861	1.00	43.53
1805	C	LYS	A	224	-53.093	-4.046	96.941	1.00	26.16
1806	O	LYS	A	224	-53.346	-3.787	95.770	1.00	26.68
1807	N	THR	A	225	-53.150	-5.277	97.413	1.00	25.90
1808	CA	THR	A	225	-53.533	-6.366	96.555	1.00	25.55
1809	CB	THR	A	225	-52.553	-7.532	96.751	1.00	25.37
1810	OG1	THR	A	225	-51.293	-7.181	96.178	1.00	25.61
1811	CG2	THR	A	225	-52.972	-8.742	95.937	1.00	25.25
1812	C	THR	A	225	-54.955	-6.775	96.912	1.00	25.60
1813	O	THR	A	225	-55.212	-7.167	98.029	1.00	25.34
1814	N	VAL	A	226	-55.890	-6.654	95.973	1.00	25.53
1815	CA	VAL	A	226	-57.248	-7.081	96.259	1.00	25.10
1816	CB	VAL	A	226	-58.291	-6.298	95.437	1.00	25.59
1817	CG1	VAL	A	226	-59.694	-6.918	95.590	1.00	23.61
1818	CG2	VAL	A	226	-58.308	-4.843	95.852	1.00	23.96
1819	C	VAL	A	226	-57.326	-8.554	95.912	1.00	25.63
1820	O	VAL	A	226	-56.780	-8.984	94.901	1.00	25.43
1821	N	ARG	A	227	-57.982	-9.327	96.766	1.00	26.04
1822	CA	ARG	A	227	-58.085	-10.752	96.574	1.00	26.89
1823	CB	ARG	A	227	-57.274	-11.497	97.636	1.00	27.10
1824	CG	ARG	A	227	-55.813	-11.080	97.664	1.00	29.19
1825	CD	ARG	A	227	-54.920	-11.828	98.648	1.00	31.64
1826	NE	ARG	A	227	-53.504	-11.567	98.358	1.00	35.93

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**FIGURE 3AJ**

A	B	C	D	E	F	G	H	I	J
1827	CZ	ARG	A	227	-52.752	-10.621	98.943	1.00	36.92
1828	NH1	ARG	A	227	-53.256	-9.829	99.885	1.00	37.20
1829	NH2	ARG	A	227	-51.478	-10.480	98.590	1.00	35.93
1830	C	ARG	A	227	-59.535	-11.122	96.677	1.00	27.13
1831	O	ARG	A	227	-60.190	-10.820	97.672	1.00	27.94
1832	N	VAL	A	228	-60.071	-11.751	95.641	1.00	26.85
1833	CA	VAL	A	228	-61.466	-12.133	95.722	1.00	26.24
1834	CB	VAL	A	228	-62.430	-11.041	95.174	1.00	26.15
1835	CG1	VAL	A	228	-63.649	-11.665	94.551	1.00	26.07
1836	CG2	VAL	A	228	-61.738	-10.114	94.239	1.00	26.89
1837	C	VAL	A	228	-61.755	-13.519	95.195	1.00	25.78
1838	O	VAL	A	228	-61.321	-13.887	94.111	1.00	26.53
1839	N	PRO	A	229	-62.450	-14.301	96.019	1.00	25.21
1840	CA	PRO	A	229	-62.839	-15.669	95.672	1.00	24.52
1841	CB	PRO	A	229	-63.740	-16.071	96.834	1.00	25.29
1842	CG	PRO	A	229	-63.229	-15.220	97.994	1.00	25.36
1843	CD	PRO	A	229	-62.917	-13.898	97.360	1.00	24.47
1844	C	PRO	A	229	-63.612	-15.616	94.375	1.00	24.65
1845	O	PRO	A	229	-64.760	-15.183	94.347	1.00	24.19
1846	N	TYR	A	230	-62.964	-16.027	93.289	1.00	24.36
1847	CA	TYR	A	230	-63.563	-15.911	91.983	1.00	23.77
1848	CB	TYR	A	230	-63.007	-14.676	91.319	1.00	24.05
1849	CG	TYR	A	230	-63.489	-14.382	89.923	1.00	23.33
1850	CD1	TYR	A	230	-64.134	-13.189	89.647	1.00	19.84
1851	CE1	TYR	A	230	-64.565	-12.895	88.384	1.00	19.63
1852	CZ	TYR	A	230	-64.325	-13.783	87.349	1.00	19.88
1853	OH	TYR	A	230	-64.726	-13.443	86.090	1.00	21.53
1854	CE2	TYR	A	230	-63.651	-14.972	87.564	1.00	20.98
1855	CD2	TYR	A	230	-63.228	-15.263	88.859	1.00	24.22
1856	C	TYR	A	230	-63.199	-17.142	91.200	1.00	24.08
1857	O	TYR	A	230	-62.029	-17.390	90.902	1.00	24.05
1858	N	PRO	A	231	-64.222	-17.915	90.868	1.00	23.61
1859	CA	PRO	A	231	-64.049	-19.161	90.144	1.00	23.30
1860	CB	PRO	A	231	-65.316	-19.934	90.491	1.00	23.32
1861	CG	PRO	A	231	-66.190	-18.985	91.237	1.00	24.17
1862	CD	PRO	A	231	-65.630	-17.626	91.155	1.00	23.35
1863	C	PRO	A	231	-64.025	-18.918	88.635	1.00	22.79
1864	O	PRO	A	231	-65.050	-18.539	88.061	1.00	22.19
1865	N	LYS	A	232	-62.872	-19.133	88.017	1.00	22.32
1866	CA	LYS	A	232	-62.752	-19.057	86.570	1.00	22.26
1867	CB	LYS	A	232	-61.307	-18.732	86.160	1.00	22.67
1868	CG	LYS	A	232	-60.827	-17.367	86.648	1.00	21.38
1869	CD	LYS	A	232	-59.439	-17.025	86.162	1.00	20.10
1870	CE	LYS	A	232	-59.004	-15.620	86.638	1.00	18.95
1871	NZ	LYS	A	232	-59.287	-14.578	85.598	1.00	17.84
1872	C	LYS	A	232	-63.252	-20.385	85.954	1.00	22.23
1873	O	LYS	A	232	-63.507	-21.348	86.672	1.00	22.23
1874	N	ALA	A	233	-63.412	-20.420	84.635	1.00	21.66
1875	CA	ALA	A	233	-63.988	-21.579	83.962	1.00	21.92
1876	CB	ALA	A	233	-63.883	-21.419	82.426	1.00	21.89
1877	C	ALA	A	233	-63.335	-22.874	84.428	1.00	21.87

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**FIGURE 3AK**

A	B	C	D	E	F	G	H	I	J
1878	O	ALA	A	233	-62.128	-22.988	84.387	1.00	21.97
1879	N	GLY	A	234	-64.133	-23.827	84.905	1.00	22.24
1880	CA	GLY	A	234	-63.599	-25.090	85.395	1.00	22.87
1881	C	GLY	A	234	-62.986	-25.160	86.806	1.00	23.76
1882	O	GLY	A	234	-62.630	-26.261	87.277	1.00	23.88
1883	N	ALA	A	235	-62.850	-24.023	87.486	1.00	23.23
1884	CA	ALA	A	235	-62.237	-24.007	88.821	1.00	23.51
1885	CB	ALA	A	235	-61.771	-22.575	89.206	1.00	22.75
1886	C	ALA	A	235	-63.213	-24.538	89.844	1.00	23.19
1887	O	ALA	A	235	-64.340	-24.820	89.510	1.00	23.52
1888	N	VAL	A	236	-62.822	-24.689	91.102	1.00	23.98
1889	CA	VAL	A	236	-63.838	-25.200	92.004	1.00	24.29
1890	CB	VAL	A	236	-63.298	-26.066	93.229	1.00	25.20
1891	CG1	VAL	A	236	-63.504	-25.396	94.602	1.00	24.06
1892	CG2	VAL	A	236	-61.850	-26.641	92.988	1.00	24.27
1893	C	VAL	A	236	-64.771	-24.075	92.379	1.00	24.63
1894	O	VAL	A	236	-64.329	-22.929	92.575	1.00	25.18
1895	N	ASN	A	237	-66.062	-24.394	92.436	1.00	24.56
1896	CA	ASN	A	237	-67.118	-23.434	92.743	1.00	24.60
1897	CB	ASN	A	237	-68.394	-23.824	92.004	1.00	24.56
1898	CG	ASN	A	237	-68.445	-23.246	90.600	1.00	25.34
1899	OD1	ASN	A	237	-67.634	-22.392	90.273	1.00	27.31
1900	ND2	ASN	A	237	-69.406	-23.683	89.782	1.00	23.82
1901	C	ASN	A	237	-67.444	-23.358	94.222	1.00	25.42
1902	O	ASN	A	237	-67.070	-24.222	94.991	1.00	25.69
1903	N	PRO	A	238	-68.090	-22.279	94.632	1.00	25.96
1904	CA	PRO	A	238	-68.683	-22.233	95.958	1.00	26.32
1905	CB	PRO	A	238	-69.400	-20.884	95.952	1.00	26.42
1906	CG	PRO	A	238	-69.528	-20.553	94.442	1.00	25.19
1907	CD	PRO	A	238	-68.230	-20.992	93.915	1.00	25.53
1908	C	PRO	A	238	-69.727	-23.344	96.060	1.00	27.23
1909	O	PRO	A	238	-70.230	-23.827	95.052	1.00	26.67
1910	N	THR	A	239	-70.046	-23.741	97.286	1.00	28.17
1911	CA	THR	A	239	-71.105	-24.692	97.512	1.00	28.46
1912	CB	THR	A	239	-70.609	-25.837	98.405	1.00	29.27
1913	OG1	THR	A	239	-69.917	-25.283	99.532	1.00	29.54
1914	CG2	THR	A	239	-69.513	-26.673	97.681	1.00	25.81
1915	C	THR	A	239	-72.177	-23.878	98.207	1.00	29.49
1916	O	THR	A	239	-71.887	-22.802	98.738	1.00	29.73
1917	N	VAL	A	240	-73.411	-24.373	98.197	1.00	29.98
1918	CA	VAL	A	240	-74.530	-23.672	98.804	1.00	30.90
1919	CB	VAL	A	240	-75.606	-23.309	97.775	1.00	30.78
1920	CG1	VAL	A	240	-75.900	-21.829	97.760	1.00	31.50
1921	CG2	VAL	A	240	-75.293	-23.920	96.427	1.00	30.72
1922	C	VAL	A	240	-75.343	-24.545	99.710	1.00	31.57
1923	O	VAL	A	240	-75.595	-25.727	99.407	1.00	31.33
1924	N	LYS	A	241	-75.836	-23.915	100.768	1.00	32.00
1925	CA	LYS	A	241	-76.736	-24.559	101.698	1.00	32.73
1926	CB	LYS	A	241	-76.042	-24.783	103.038	1.00	33.06
1927	CG	LYS	A	241	-75.128	-26.011	103.106	1.00	33.99
1928	CD	LYS	A	241	-74.480	-26.061	104.485	1.00	37.77

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**FIGURE 3AL**

A	B	C	D	E	F	G	H	I	J
1929	CE	LYS	A	241	-73.908	-27.425	104.833	1.00	39.21
1930	NZ	LYS	A	241	-72.867	-27.825	103.872	1.00	42.49
1931	C	LYS	A	241	-77.963	-23.675	101.872	1.00	33.02
1932	O	LYS	A	241	-77.878	-22.447	101.862	1.00	32.97
1933	N	PHE	A	242	-79.116	-24.304	101.997	1.00	33.38
1934	CA	PHE	A	242	-80.327	-23.553	102.201	1.00	34.14
1935	CB	PHE	A	242	-81.364	-23.875	101.138	1.00	33.59
1936	CG	PHE	A	242	-82.379	-22.804	100.980	1.00	32.07
1937	CD1	PHE	A	242	-82.064	-21.641	100.303	1.00	30.58
1938	CE1	PHE	A	242	-82.995	-20.652	100.165	1.00	29.57
1939	CZ	PHE	A	242	-84.250	-20.810	100.728	1.00	31.16
1940	CE2	PHE	A	242	-84.561	-21.963	101.422	1.00	29.96
1941	CD2	PHE	A	242	-83.638	-22.939	101.546	1.00	30.79
1942	C	PHE	A	242	-80.901	-23.790	103.595	1.00	35.20
1943	O	PHE	A	242	-80.822	-24.895	104.140	1.00	35.41
1944	N	PHE	A	243	-81.480	-22.742	104.164	1.00	36.01
1945	CA	PHE	A	243	-81.978	-22.807	105.527	1.00	36.78
1946	CB	PHE	A	243	-80.936	-22.289	106.516	1.00	35.91
1947	CG	PHE	A	243	-79.667	-23.077	106.568	1.00	35.81
1948	CD1	PHE	A	243	-78.541	-22.647	105.870	1.00	34.72
1949	CE1	PHE	A	243	-77.356	-23.344	105.936	1.00	33.39
1950	CZ	PHE	A	243	-77.264	-24.486	106.717	1.00	35.51
1951	CE2	PHE	A	243	-78.379	-24.924	107.442	1.00	34.98
1952	CD2	PHE	A	243	-79.568	-24.209	107.368	1.00	35.08
1953	C	PHE	A	243	-83.152	-21.875	105.645	1.00	37.64
1954	O	PHE	A	243	-83.216	-20.862	104.959	1.00	37.68
1955	N	VAL	A	244	-84.086	-22.221	106.516	1.00	38.88
1956	CA	VAL	A	244	-85.180	-21.315	106.819	1.00	39.81
1957	CB	VAL	A	244	-86.448	-21.629	106.011	1.00	39.73
1958	CG1	VAL	A	244	-86.663	-23.099	105.909	1.00	40.45
1959	CG2	VAL	A	244	-87.660	-20.917	106.589	1.00	39.49
1960	C	VAL	A	244	-85.389	-21.278	108.341	1.00	40.81
1961	O	VAL	A	244	-85.360	-22.311	109.025	1.00	40.73
1962	N	VAL	A	245	-85.519	-20.070	108.871	1.00	41.56
1963	CA	VAL	A	245	-85.668	-19.881	110.302	1.00	42.70
1964	CB	VAL	A	245	-84.494	-19.061	110.867	1.00	42.62
1965	CG1	VAL	A	245	-84.602	-17.607	110.441	1.00	41.92
1966	CG2	VAL	A	245	-84.428	-19.175	112.381	1.00	42.55
1967	C	VAL	A	245	-86.982	-19.178	110.619	1.00	43.50
1968	O	VAL	A	245	-87.409	-18.286	109.886	1.00	43.71
1969	N	ASN	A	246	-87.627	-19.607	111.700	1.00	44.67
1970	CA	ASN	A	246	-88.873	-19.005	112.169	1.00	45.89
1971	CB	ASN	A	246	-89.574	-19.983	113.106	1.00	45.69
1972	CG	ASN	A	246	-91.029	-19.629	113.356	1.00	45.83
1973	OD1	ASN	A	246	-91.391	-18.460	113.496	1.00	44.42
1974	ND2	ASN	A	246	-91.873	-20.653	113.433	1.00	45.15
1975	C	ASN	A	246	-88.538	-17.724	112.927	1.00	46.85
1976	O	ASN	A	246	-87.882	-17.765	113.956	1.00	46.79
1977	N	THR	A	247	-88.964	-16.578	112.427	1.00	48.25
1978	CA	THR	A	247	-88.616	-15.343	113.114	1.00	49.89
1979	CB	THR	A	247	-88.520	-14.175	112.123	1.00	49.75

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**FIGURE 3AM**

A	B	C	D	E	F	G	H	I	J
1980	OG1	THR	A	247	-89.810	-13.910	111.561	1.00	49.26
1981	CG2	THR	A	247	-87.663	-14.574	110.924	1.00	50.06
1982	C	THR	A	247	-89.584	-15.006	114.247	1.00	51.26
1983	O	THR	A	247	-89.356	-14.074	115.010	1.00	51.43
1984	N	ASP	A	248	-90.668	-15.765	114.349	1.00	52.69
1985	CA	ASP	A	248	-91.657	-15.527	115.382	1.00	54.07
1986	CB	ASP	A	248	-93.049	-15.935	114.897	1.00	54.08
1987	CG	ASP	A	248	-93.630	-14.952	113.906	1.00	54.15
1988	OD1	ASP	A	248	-93.169	-13.792	113.876	1.00	54.84
1989	OD2	ASP	A	248	-94.558	-15.245	113.123	1.00	55.03
1990	C	ASP	A	248	-91.300	-16.282	116.654	1.00	55.20
1991	O	ASP	A	248	-91.787	-15.952	117.740	1.00	55.47
1992	N	SER	A	249	-90.448	-17.293	116.520	1.00	56.35
1993	CA	SER	A	249	-90.017	-18.068	117.672	1.00	57.70
1994	CB	SER	A	249	-90.022	-19.562	117.349	1.00	57.84
1995	OG	SER	A	249	-89.235	-19.840	116.200	1.00	59.31
1996	C	SER	A	249	-88.629	-17.632	118.144	1.00	58.50
1997	O	SER	A	249	-87.880	-18.424	118.719	1.00	58.56
1998	N	LEU	A	250	-88.283	-16.370	117.907	1.00	59.41
1999	CA	LEU	A	250	-86.969	-15.897	118.321	1.00	60.16
2000	CB	LEU	A	250	-86.663	-14.493	117.798	1.00	60.09
2001	CG	LEU	A	250	-85.728	-14.558	116.581	1.00	59.67
2002	CD1	LEU	A	250	-86.148	-13.589	115.488	1.00	59.18
2003	CD2	LEU	A	250	-85.660	-15.967	116.025	1.00	59.15
2004	C	LEU	A	250	-86.765	-16.062	119.827	1.00	60.99
2005	O	LEU	A	250	-87.638	-15.750	120.644	1.00	60.90
2006	N	SER	A	251	-85.573	-16.550	120.150	1.00	61.75
2007	CA	SER	A	251	-85.219	-17.082	121.457	1.00	62.33
2008	CB	SER	A	251	-84.058	-18.045	121.231	1.00	62.77
2009	OG	SER	A	251	-83.915	-18.320	119.837	1.00	63.26
2010	C	SER	A	251	-84.867	-16.149	122.614	1.00	62.50
2011	O	SER	A	251	-85.283	-16.393	123.752	1.00	62.69
2012	N	SER	A	252	-84.065	-15.121	122.340	1.00	62.50
2013	CA	SER	A	252	-83.643	-14.154	123.364	1.00	62.28
2014	CB	SER	A	252	-84.851	-13.472	124.017	1.00	62.54
2015	OG	SER	A	252	-85.366	-12.425	123.206	1.00	62.89
2016	C	SER	A	252	-82.742	-14.754	124.439	1.00	62.02
2017	O	SER	A	252	-82.110	-14.029	125.199	1.00	62.19
2018	N	VAL	A	253	-82.694	-16.081	124.499	1.00	61.65
2019	CA	VAL	A	253	-81.866	-16.791	125.468	1.00	61.16
2020	CB	VAL	A	253	-82.699	-17.302	126.672	1.00	61.48
2021	CG1	VAL	A	253	-82.228	-18.683	127.124	1.00	61.20
2022	CG2	VAL	A	253	-82.643	-16.297	127.822	1.00	61.38
2023	C	VAL	A	253	-81.155	-17.955	124.795	1.00	60.70
2024	O	VAL	A	253	-79.951	-18.148	124.977	1.00	60.91
2025	N	THR	A	254	-81.902	-18.732	124.017	1.00	59.69
2026	CA	THR	A	254	-81.305	-19.823	123.259	1.00	58.90
2027	CB	THR	A	254	-82.134	-21.120	123.387	1.00	58.99
2028	OG1	THR	A	254	-82.206	-21.764	122.111	1.00	59.03
2029	OG2	THR	A	254	-83.583	-20.812	123.711	1.00	59.10
2030	C	THR	A	254	-81.107	-19.413	121.792	1.00	57.99

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**FIGURE 3AN**

A	B	C	D	E	F	G	H	I	J
2031	O	THR	A	254	-81.825	-18.557	121.284	1.00	57.99
2032	N	ASN	A	255	-80.117	-20.010	121.130	1.00	56.82
2033	CA	ASN	A	255	-79.790	-19.678	119.739	1.00	55.54
2034	CB	ASN	A	255	-78.423	-20.268	119.347	1.00	55.63
2035	CG	ASN	A	255	-77.256	-19.398	119.782	1.00	54.94
2036	OD1	ASN	A	255	-77.421	-18.200	120.007	1.00	54.46
2037	ND2	ASN	A	255	-76.063	-19.996	119.890	1.00	56.20
2038	C	ASN	A	255	-80.848	-20.155	118.753	1.00	54.80
2039	O	ASN	A	255	-81.358	-21.269	118.873	1.00	54.78
2040	N	ALA	A	256	-81.173	-19.304	117.783	1.00	53.80
2041	CA	ALA	A	256	-82.132	-19.648	116.727	1.00	52.60
2042	CB	ALA	A	256	-82.250	-18.515	115.745	1.00	52.50
2043	C	ALA	A	256	-81.729	-20.918	115.990	1.00	51.62
2044	O	ALA	A	256	-80.553	-21.133	115.702	1.00	51.68
2045	N	THR	A	257	-82.706	-21.760	115.682	1.00	50.47
2046	CA	THR	A	257	-82.426	-22.986	114.948	1.00	49.46
2047	CB	THR	A	257	-83.070	-24.201	115.644	1.00	49.75
2048	OG1	THR	A	257	-83.674	-25.066	114.666	1.00	50.68
2049	CG2	THR	A	257	-84.245	-23.764	116.501	1.00	50.21
2050	C	THR	A	257	-82.874	-22.858	113.489	1.00	48.15
2051	O	THR	A	257	-84.012	-22.517	113.205	1.00	48.05
2052	N	SER	A	258	-81.958	-23.115	112.568	1.00	46.76
2053	CA	SER	A	258	-82.271	-23.006	111.153	1.00	45.31
2054	CB	SER	A	258	-81.125	-22.358	110.393	1.00	45.03
2055	OG	SER	A	258	-80.925	-21.040	110.852	1.00	45.08
2056	C	SER	A	258	-82.546	-24.369	110.583	1.00	44.36
2057	O	SER	A	258	-81.779	-25.314	110.797	1.00	44.05
2058	N	ILE	A	259	-83.659	-24.475	109.877	1.00	43.32
2059	CA	ILE	A	259	-83.992	-25.729	109.256	1.00	42.61
2060	CB	ILE	A	259	-85.500	-25.945	109.171	1.00	42.56
2061	CG1	ILE	A	259	-86.160	-25.643	110.516	1.00	42.51
2062	CD1	ILE	A	259	-85.716	-26.579	111.630	1.00	42.12
2063	CG2	ILE	A	259	-85.770	-27.386	108.768	1.00	41.83
2064	C	ILE	A	259	-83.388	-25.743	107.871	1.00	42.36
2065	O	ILE	A	259	-83.662	-24.861	107.039	1.00	42.04
2066	N	GLN	A	260	-82.537	-26.731	107.647	1.00	41.69
2067	CA	GLN	A	260	-81.911	-26.883	106.357	1.00	41.23
2068	CB	GLN	A	260	-80.565	-27.615	106.477	1.00	41.39
2069	CG	GLN	A	260	-79.904	-27.935	105.138	1.00	41.31
2070	CD	GLN	A	260	-78.462	-28.393	105.287	1.00	41.98
2071	OE1	GLN	A	260	-78.074	-28.899	106.343	1.00	43.78
2072	NE2	GLN	A	260	-77.663	-28.214	104.235	1.00	40.57
2073	C	GLN	A	260	-82.833	-27.666	105.454	1.00	40.52
2074	O	GLN	A	260	-83.422	-28.673	105.869	1.00	40.70
2075	N	ILE	A	261	-82.973	-27.160	104.234	1.00	39.49
2076	CA	ILE	A	261	-83.652	-27.838	103.147	1.00	38.43
2077	CB	ILE	A	261	-84.569	-26.861	102.417	1.00	38.11
2078	CG1	ILE	A	261	-85.706	-26.408	103.340	1.00	37.92
2079	CD1	ILE	A	261	-86.700	-25.455	102.677	1.00	35.89
2080	CG2	ILE	A	261	-85.151	-27.501	101.180	1.00	37.85
2081	C	ILE	A	261	-82.516	-28.251	102.230	1.00	38.16

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**FIGURE 3AO**

A	B	C	D	E	F	G	H	I	J
2082	O	ILE	A	261	-81.745	-27.406	101.773	1.00	38.33
2083	N	THR	A	262	-82.372	-29.545	101.982	1.00	37.42
2084	CA	THR	A	262	-81.274	-30.000	101.141	1.00	37.01
2085	CB	THR	A	262	-80.823	-31.395	101.544	1.00	36.89
2086	OG1	THR	A	262	-81.978	-32.203	101.791	1.00	38.71
2087	CG2	THR	A	262	-80.139	-31.356	102.896	1.00	37.90
2088	C	THR	A	262	-81.649	-29.981	99.669	1.00	36.23
2089	O	THR	A	262	-82.820	-30.100	99.312	1.00	36.03
2090	N	ALA	A	263	-80.649	-29.809	98.815	1.00	35.27
2091	CA	ALA	A	263	-80.904	-29.827	97.379	1.00	34.96
2092	CB	ALA	A	263	-79.639	-29.484	96.600	1.00	34.39
2093	C	ALA	A	263	-81.409	-31.215	97.002	1.00	34.41
2094	O	ALA	A	263	-81.124	-32.193	97.687	1.00	34.45
2095	N	PRO	A	264	-82.155	-31.300	95.911	1.00	34.07
2096	CA	PRO	A	264	-82.692	-32.583	95.447	1.00	33.39
2097	CB	PRO	A	264	-83.407	-32.215	94.142	1.00	33.13
2098	CG	PRO	A	264	-83.639	-30.758	94.217	1.00	33.45
2099	CD	PRO	A	264	-82.520	-30.179	95.024	1.00	33.77
2100	C	PRO	A	264	-81.561	-33.552	95.146	1.00	32.55
2101	O	PRO	A	264	-80.461	-33.137	94.789	1.00	32.12
2102	N	ALA	A	265	-81.832	-34.838	95.306	1.00	32.44
2103	CA	ALA	A	265	-80.849	-35.882	95.013	1.00	31.81
2104	CB	ALA	A	265	-81.474	-37.267	95.230	1.00	31.65
2105	C	ALA	A	265	-80.272	-35.757	93.586	1.00	31.53
2106	O	ALA	A	265	-79.090	-35.999	93.363	1.00	31.62
2107	N	SER	A	266	-81.108	-35.379	92.629	1.00	31.21
2108	CA	SER	A	266	-80.656	-35.159	91.260	1.00	31.53
2109	CB	SER	A	266	-81.848	-34.821	90.386	1.00	31.72
2110	OG	SER	A	266	-82.497	-33.672	90.904	1.00	33.45
2111	C	SER	A	266	-79.626	-34.021	91.154	1.00	31.35
2112	O	SER	A	266	-78.956	-33.877	90.136	1.00	30.85
2113	N	MET	A	267	-79.496	-33.216	92.202	1.00	30.95
2114	CA	MET	A	267	-78.508	-32.155	92.178	1.00	31.20
2115	CB	MET	A	267	-79.091	-30.854	92.728	1.00	31.15
2116	CG	MET	A	267	-80.123	-30.228	91.823	1.00	31.38
2117	SD	MET	A	267	-79.395	-29.441	90.337	1.00	30.99
2118	CE	MET	A	267	-80.646	-29.917	89.134	1.00	26.89
2119	C	MET	A	267	-77.279	-32.519	92.970	1.00	31.38
2120	O	MET	A	267	-76.169	-32.137	92.603	1.00	31.24
2121	N	LEU	A	268	-77.487	-33.270	94.052	1.00	32.50
2122	CA	LEU	A	268	-76.427	-33.627	95.001	1.00	32.73
2123	CB	LEU	A	268	-77.044	-34.249	96.264	1.00	32.88
2124	CG	LEU	A	268	-77.862	-33.305	97.169	1.00	33.83
2125	CD1	LEU	A	268	-78.619	-34.089	98.234	1.00	33.53
2126	CD2	LEU	A	268	-76.985	-32.236	97.830	1.00	30.90
2127	C	LEU	A	268	-75.375	-34.554	94.409	1.00	32.58
2128	O	LEU	A	268	-74.322	-34.793	95.001	1.00	32.76
2129	N	ILE	A	269	-75.662	-35.073	93.232	1.00	32.48
2130	CA	ILE	A	269	-74.761	-36.006	92.566	1.00	32.76
2131	CB	ILE	A	269	-75.552	-36.774	91.474	1.00	32.89
2132	CG1	ILE	A	269	-74.923	-38.139	91.213	1.00	35.72



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FIGURE 3AP

A	B	C	D	E	F	G	H	I	J
2133	CD1	ILE	A	269	-75.364	-39.221	92.239	1.00	38.91
2134	CG2	ILE	A	269	-75.752	-35.942	90.196	1.00	33.92
2135	C	ILE	A	269	-73.495	-35.326	92.017	1.00	32.19
2136	O	ILE	A	269	-72.519	-35.992	91.644	1.00	32.60
2137	N	GLY	A	270	-73.501	-33.996	91.994	1.00	31.07
2138	CA	GLY	A	270	-72.343	-33.237	91.559	1.00	29.95
2139	C	GLY	A	270	-72.464	-31.754	91.870	1.00	29.19
2140	O	GLY	A	270	-73.311	-31.339	92.661	1.00	28.83
2141	N	ASP	A	271	-71.598	-30.950	91.260	1.00	28.45
2142	CA	ASP	A	271	-71.654	-29.507	91.448	1.00	27.59
2143	CB	ASP	A	271	-70.558	-28.810	90.654	1.00	27.94
2144	CG	ASP	A	271	-69.197	-29.002	91.243	1.00	28.64
2145	OD1	ASP	A	271	-69.062	-29.687	92.277	1.00	32.28
2146	OD2	ASP	A	271	-68.183	-28.512	90.727	1.00	31.33
2147	C	ASP	A	271	-73.009	-29.009	90.969	1.00	26.80
2148	O	ASP	A	271	-73.530	-29.442	89.930	1.00	26.17
2149	N	HIS	A	272	-73.579	-28.099	91.734	1.00	25.81
2150	CA	HIS	A	272	-74.869	-27.549	91.397	1.00	26.04
2151	CB	HIS	A	272	-75.983	-28.440	91.976	1.00	26.06
2152	CG	HIS	A	272	-75.857	-28.670	93.449	1.00	26.86
2153	ND1	HIS	A	272	-75.037	-29.641	93.982	1.00	28.32
2154	CE1	HIS	A	272	-75.114	-29.605	95.303	1.00	28.38
2155	NE2	HIS	A	272	-75.948	-28.641	95.646	1.00	27.58
2156	CD2	HIS	A	272	-76.429	-28.040	94.504	1.00	26.93
2157	C	HIS	A	272	-74.982	-26.116	91.924	1.00	25.63
2158	O	HIS	A	272	-74.096	-25.620	92.622	1.00	25.67
2159	N	TYR	A	273	-76.077	-25.455	91.589	1.00	25.18
2160	CA	TYR	A	273	-76.310	-24.097	92.044	1.00	25.33
2161	CB	TYR	A	273	-76.217	-23.105	90.898	1.00	24.59
2162	CG	TYR	A	273	-74.954	-23.119	90.098	1.00	24.95
2163	CD1	TYR	A	273	-73.790	-22.620	90.624	1.00	24.16
2164	CE1	TYR	A	273	-72.643	-22.605	89.888	1.00	25.98
2165	CZ	TYR	A	273	-72.636	-23.089	88.598	1.00	25.36
2166	OH	TYR	A	273	-71.449	-23.042	87.899	1.00	26.59
2167	CE2	TYR	A	273	-73.788	-23.593	88.028	1.00	23.35
2168	CD2	TYR	A	273	-74.939	-23.605	88.774	1.00	25.51
2169	C	TYR	A	273	-77.721	-23.960	92.564	1.00	26.02
2170	O	TYR	A	273	-78.628	-24.701	92.175	1.00	26.79
2171	N	LEU	A	274	-77.915	-22.999	93.453	1.00	25.96
2172	CA	LEU	A	274	-79.254	-22.659	93.846	1.00	25.26
2173	CB	LEU	A	274	-79.278	-22.203	95.295	1.00	24.56
2174	CG	LEU	A	274	-80.563	-21.506	95.733	1.00	23.32
2175	CD1	LEU	A	274	-81.768	-22.461	95.653	1.00	21.24
2176	CD2	LEU	A	274	-80.383	-20.940	97.129	1.00	21.74
2177	C	LEU	A	274	-79.496	-21.499	92.902	1.00	25.98
2178	O	LEU	A	274	-78.695	-20.583	92.866	1.00	25.32
2179	N	CYS	A	275	-80.567	-21.523	92.114	1.00	27.06
2180	CA	CYS	A	275	-80.734	-20.447	91.155	1.00	28.60
2181	CB	CYS	A	275	-80.616	-20.952	89.714	1.00	28.81
2182	SG	CYS	A	275	-81.862	-22.181	89.283	1.00	32.54
2183	C	CYS	A	275	-81.998	-19.653	91.328	1.00	29.06

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**FIGURE 3AQ**

A	B	C	D	E	F	G	H	I	J
2184	O	CYS	A	275	-82.135	-18.580	90.750	1.00	29.63
2185	N	ASP	A	276	-82.936	-20.175	92.101	1.00	29.85
2186	CA	ASP	A	276	-84.158	-19.420	92.354	1.00	30.43
2187	CB	ASP	A	276	-85.174	-19.643	91.234	1.00	30.40
2188	CG	ASP	A	276	-86.338	-18.669	91.301	1.00	31.12
2189	OD1	ASP	A	276	-87.323	-18.939	92.029	1.00	30.91
2190	OD2	ASP	A	276	-86.357	-17.607	90.649	1.00	31.73
2191	C	ASP	A	276	-84.799	-19.731	93.711	1.00	30.92
2192	O	ASP	A	276	-84.871	-20.881	94.152	1.00	30.46
2193	N	VAL	A	277	-85.280	-18.682	94.358	1.00	31.55
2194	CA	VAL	A	277	-85.982	-18.824	95.607	1.00	32.23
2195	CB	VAL	A	277	-85.148	-18.298	96.806	1.00	32.71
2196	CG1	VAL	A	277	-85.968	-18.350	98.104	1.00	32.58
2197	CG2	VAL	A	277	-83.877	-19.085	96.965	1.00	30.85
2198	C	VAL	A	277	-87.269	-18.043	95.462	1.00	33.17
2199	O	VAL	A	277	-87.252	-16.844	95.163	1.00	33.74
2200	N	THR	A	278	-88.400	-18.720	95.615	1.00	33.72
2201	CA	THR	A	278	-89.666	-18.016	95.522	1.00	34.38
2202	CB	THR	A	278	-90.194	-18.040	94.077	1.00	34.88
2203	OG1	THR	A	278	-89.323	-17.279	93.225	1.00	35.83
2204	CG2	THR	A	278	-91.545	-17.310	93.983	1.00	33.77
2205	C	THR	A	278	-90.711	-18.599	96.480	1.00	35.24
2206	O	THR	A	278	-91.060	-19.804	96.406	1.00	34.88
2207	N	TRP	A	279	-91.194	-17.748	97.387	1.00	35.53
2208	CA	TRP	A	279	-92.255	-18.136	98.320	1.00	35.87
2209	CB	TRP	A	279	-92.383	-17.138	99.478	1.00	35.63
2210	CG	TRP	A	279	-91.285	-17.289	100.476	1.00	34.42
2211	CD1	TRP	A	279	-90.101	-16.627	100.493	1.00	33.80
2212	NE1	TRP	A	279	-89.332	-17.047	101.552	1.00	33.52
2213	CE2	TRP	A	279	-90.029	-17.995	102.249	1.00	34.52
2214	CD2	TRP	A	279	-91.265	-18.173	101.592	1.00	34.41
2215	CE3	TRP	A	279	-92.172	-19.098	102.117	1.00	35.32
2216	CZ3	TRP	A	279	-91.817	-19.809	103.256	1.00	34.69
2217	CH2	TRP	A	279	-90.585	-19.608	103.878	1.00	34.85
2218	CZ2	TRP	A	279	-89.679	-18.705	103.395	1.00	35.09
2219	C	TRP	A	279	-93.588	-18.263	97.602	1.00	36.53
2220	O	TRP	A	279	-94.003	-17.359	96.870	1.00	36.29
2221	N	ALA	A	280	-94.258	-19.393	97.809	1.00	37.43
2222	CA	ALA	A	280	-95.545	-19.612	97.179	1.00	38.74
2223	CB	ALA	A	280	-95.691	-21.044	96.784	1.00	39.19
2224	C	ALA	A	280	-96.672	-19.199	98.112	1.00	39.57
2225	O	ALA	A	280	-97.656	-18.627	97.667	1.00	39.87
2226	N	THR	A	281	-96.518	-19.506	99.400	1.00	40.41
2227	CA	THR	A	281	-97.498	-19.162	100.425	1.00	41.08
2228	CB	THR	A	281	-98.475	-20.305	100.666	1.00	41.30
2229	OG1	THR	A	281	-97.789	-21.362	101.344	1.00	43.15
2230	CG2	THR	A	281	-98.932	-20.944	99.378	1.00	41.56
2231	C	THR	A	281	-96.742	-18.960	101.730	1.00	41.45
2232	O	THR	A	281	-95.506	-18.961	101.730	1.00	41.57
2233	N	GLN	A	282	-97.484	-18.820	102.835	1.00	41.08
2234	CA	GLN	A	282	-96.893	-18.659	104.168	1.00	40.97

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**FIGURE 3AR**

A	B	C	D	E	F	G	H	I	J
2235	CB	GLN	A	282	-97.982	-18.477	105.241	1.00	40.89
2236	CG	GLN	A	282	-99.022	-17.407	104.967	1.00	40.19
2237	CD	GLN	A	282	-98.423	-16.039	104.810	1.00	40.46
2238	OE1	GLN	A	282	-97.218	-15.842	105.021	1.00	41.48
2239	NE2	GLN	A	282	-99.250	-15.084	104.438	1.00	40.81
2240	C	GLN	A	282	-96.043	-19.859	104.578	1.00	40.87
2241	O	GLN	A	282	-95.065	-19.712	105.312	1.00	40.98
2242	N	GLU	A	283	-96.424	-21.042	104.115	1.00	40.93
2243	CA	GLU	A	283	-95.738	-22.266	104.501	1.00	41.80
2244	CB	GLU	A	283	-96.670	-23.121	105.333	1.00	42.18
2245	CG	GLU	A	283	-97.060	-22.507	106.663	1.00	44.15
2246	CD	GLU	A	283	-98.172	-23.289	107.336	1.00	46.00
2247	OE1	GLU	A	283	-98.743	-22.768	108.319	1.00	49.38
2248	OE2	GLU	A	283	-98.475	-24.417	106.878	1.00	45.11
2249	C	GLU	A	283	-95.249	-23.103	103.314	1.00	41.89
2250	O	GLU	A	283	-94.935	-24.298	103.474	1.00	41.58
2251	N	ARG	A	284	-95.210	-22.479	102.136	1.00	41.31
2252	CA	ARG	A	284	-94.719	-23.125	100.931	1.00	41.03
2253	CB	ARG	A	284	-95.883	-23.492	100.003	1.00	41.52
2254	CG	ARG	A	284	-95.473	-23.871	98.571	1.00	42.57
2255	CD	ARG	A	284	-96.620	-24.489	97.747	1.00	44.25
2256	NE	ARG	A	284	-97.243	-25.575	98.498	1.00	46.10
2257	CZ	ARG	A	284	-98.524	-25.919	98.424	1.00	46.28
2258	NH1	ARG	A	284	-99.357	-25.284	97.611	1.00	45.98
2259	NH2	ARG	A	284	-98.972	-26.914	99.171	1.00	46.28
2260	C	ARG	A	284	-93.716	-22.245	100.192	1.00	40.44
2261	O	ARG	A	284	-94.009	-21.104	99.808	1.00	40.37
2262	N	ILE	A	285	-92.528	-22.789	99.987	1.00	39.75
2263	CA	ILE	A	285	-91.486	-22.074	99.278	1.00	39.15
2264	CB	ILE	A	285	-90.341	-21.711	100.244	1.00	39.31
2265	CG1	ILE	A	285	-89.264	-20.934	99.496	1.00	38.61
2266	CD1	ILE	A	285	-88.269	-20.302	100.384	1.00	39.48
2267	CG2	ILE	A	285	-89.752	-22.965	100.864	1.00	38.79
2268	C	ILE	A	285	-90.953	-22.923	98.132	1.00	38.33
2269	O	ILE	A	285	-90.785	-24.132	98.280	1.00	38.22
2270	N	SER	A	286	-90.713	-22.297	96.985	1.00	37.40
2271	CA	SER	A	286	-90.157	-23.015	95.837	1.00	36.42
2272	CB	SER	A	286	-90.917	-22.711	94.562	1.00	36.26
2273	OG	SER	A	286	-90.749	-21.348	94.222	1.00	37.97
2274	C	SER	A	286	-88.696	-22.621	95.677	1.00	35.63
2275	O	SER	A	286	-88.326	-21.450	95.827	1.00	35.04
2276	N	LEU	A	287	-87.887	-23.623	95.366	1.00	34.71
2277	CA	LEU	A	287	-86.456	-23.505	95.287	1.00	34.27
2278	CB	LEU	A	287	-85.870	-24.346	96.417	1.00	34.37
2279	CG	LEU	A	287	-84.891	-23.735	97.417	1.00	36.11
2280	CD1	LEU	A	287	-84.773	-24.619	98.643	1.00	34.38
2281	CD2	LEU	A	287	-85.340	-22.317	97.814	1.00	36.34
2282	C	LEU	A	287	-86.070	-24.126	93.955	1.00	33.93
2283	O	LEU	A	287	-86.444	-25.266	93.682	1.00	34.02
2284	N	GLN	A	288	-85.384	-23.386	93.088	1.00	32.93
2285	CA	GLN	A	288	-84.921	-24.012	91.849	1.00	32.27

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**FIGURE 3AS**

A	B	C	D	E	F	G	H	I	J
2286	CB	GLN	A	288	-85.272	-23.219	90.586	1.00	32.03
2287	CG	GLN	A	288	-86.749	-23.070	90.314	1.00	32.25
2288	CD	GLN	A	288	-87.036	-22.297	89.034	1.00	33.56
2289	OE1	GLN	A	288	-86.678	-22.736	87.928	1.00	32.25
2290	NE2	GLN	A	288	-87.674	-21.140	89.177	1.00	33.25
2291	C	GLN	A	288	-83.422	-24.191	91.956	1.00	31.43
2292	O	GLN	A	288	-82.717	-23.312	92.448	1.00	31.50
2293	N	TRP	A	289	-82.952	-25.345	91.504	1.00	30.05
2294	CA	TRP	A	289	-81.550	-25.663	91.524	1.00	28.99
2295	CB	TRP	A	289	-81.290	-26.892	92.401	1.00	29.63
2296	CG	TRP	A	289	-81.758	-26.801	93.835	1.00	28.11
2297	CD1	TRP	A	289	-82.994	-27.083	94.304	1.00	26.60
2298	NE1	TRP	A	289	-83.037	-26.919	95.664	1.00	25.30
2299	CE2	TRP	A	289	-81.804	-26.530	96.099	1.00	27.52
2300	CD2	TRP	A	289	-80.974	-26.445	94.971	1.00	27.50
2301	CE3	TRP	A	289	-79.646	-26.063	95.152	1.00	28.54
2302	CZ3	TRP	A	289	-79.203	-25.784	96.419	1.00	28.35
2303	CH2	TRP	A	289	-80.060	-25.868	97.518	1.00	29.89
2304	CZ2	TRP	A	289	-81.360	-26.246	97.380	1.00	27.77
2305	C	TRP	A	289	-81.142	-25.973	90.106	1.00	28.22
2306	O	TRP	A	289	-81.958	-26.428	89.315	1.00	27.95
2307	N	LEU	A	290	-79.863	-25.771	89.807	1.00	28.05
2308	CA	LEU	A	290	-79.318	-25.937	88.465	1.00	27.10
2309	CB	LEU	A	290	-78.901	-24.561	87.940	1.00	27.24
2310	CG	LEU	A	290	-79.195	-24.003	86.546	1.00	27.54
2311	CD1	LEU	A	290	-78.330	-22.756	86.272	1.00	22.78
2312	CD2	LEU	A	290	-79.105	-25.028	85.422	1.00	25.82
2313	C	LEU	A	290	-78.049	-26.722	88.605	1.00	26.26
2314	O	LEU	A	290	-77.204	-26.365	89.390	1.00	25.73
2315	N	ARG	A	291	-77.876	-27.779	87.829	1.00	26.62
2316	CA	ARG	A	291	-76.594	-28.498	87.870	1.00	26.34
2317	CB	ARG	A	291	-76.649	-29.767	87.020	1.00	26.04
2318	CG	ARG	A	291	-77.571	-30.860	87.514	1.00	28.20
2319	CD	ARG	A	291	-77.474	-32.145	86.690	1.00	31.04
2320	NE	ARG	A	291	-78.251	-33.212	87.308	1.00	35.84
2321	CZ	ARG	A	291	-78.782	-34.239	86.656	1.00	34.28
2322	NH1	ARG	A	291	-79.480	-35.139	87.329	1.00	31.91
2323	NH2	ARG	A	291	-78.611	-34.364	85.345	1.00	32.21
2324	C	ARG	A	291	-75.511	-27.599	87.280	1.00	25.50
2325	O	ARG	A	291	-75.818	-26.696	86.502	1.00	24.87
2326	N	ARG	A	292	-74.256	-27.872	87.618	1.00	25.10
2327	CA	ARG	A	292	-73.139	-27.141	87.025	1.00	25.84
2328	CB	ARG	A	292	-71.791	-27.564	87.611	1.00	25.46
2329	CG	ARG	A	292	-70.719	-26.515	87.425	1.00	24.84
2330	CD	ARG	A	292	-69.353	-26.903	87.945	1.00	22.79
2331	NE	ARG	A	292	-68.347	-25.941	87.524	1.00	24.65
2332	CZ	ARG	A	292	-67.209	-25.716	88.186	1.00	27.61
2333	NH1	ARG	A	292	-66.354	-24.806	87.735	1.00	23.20
2334	NH2	ARG	A	292	-66.926	-26.406	89.301	1.00	25.07
2335	C	ARG	A	292	-73.135	-27.221	85.484	1.00	26.01
2336	O	ARG	A	292	-72.722	-26.272	84.810	1.00	26.29

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**FIGURE 3AT**

A	B	C	D	E	F	G	H	I	J
2337	N	ILE	A	293	-73.582	-28.336	84.916	1.00	26.05
2338	CA	ILE	A	293	-73.810	-28.337	83.482	1.00	25.78
2339	CB	ILE	A	293	-73.613	-29.693	82.855	1.00	26.60
2340	CG1	ILE	A	293	-72.135	-30.125	83.029	1.00	27.40
2341	CD1	ILE	A	293	-71.960	-31.641	83.184	1.00	31.38
2342	CG2	ILE	A	293	-73.939	-29.589	81.383	1.00	24.44
2343	C	ILE	A	293	-75.226	-27.827	83.375	1.00	25.88
2344	O	ILE	A	293	-76.195	-28.521	83.690	1.00	25.88
2345	N	GLN	A	294	-75.332	-26.580	82.955	1.00	25.86
2346	CA	GLN	A	294	-76.572	-25.841	83.078	1.00	25.91
2347	CB	GLN	A	294	-76.277	-24.354	83.074	1.00	25.69
2348	CG	GLN	A	294	-75.298	-23.984	84.156	1.00	24.92
2349	CD	GLN	A	294	-75.007	-22.514	84.196	1.00	23.92
2350	OE1	GLN	A	294	-75.912	-21.691	84.092	1.00	24.34
2351	NE2	GLN	A	294	-73.746	-22.177	84.351	1.00	24.37
2352	C	GLN	A	294	-77.679	-26.146	82.115	1.00	26.78
2353	O	GLN	A	294	-78.414	-25.240	81.727	1.00	26.59
2354	N	ASN	A	295	-77.825	-27.414	81.746	1.00	27.52
2355	CA	ASN	A	295	-78.920	-27.774	80.868	1.00	28.56
2356	CB	ASN	A	295	-78.416	-28.489	79.607	1.00	29.50
2357	CG	ASN	A	295	-77.712	-29.809	79.903	1.00	31.49
2358	OD1	ASN	A	295	-77.614	-30.243	81.051	1.00	32.33
2359	ND2	ASN	A	295	-77.212	-30.450	78.849	1.00	38.02
2360	C	ASN	A	295	-79.987	-28.568	81.609	1.00	28.54
2361	O	ASN	A	295	-80.899	-29.110	81.017	1.00	27.88
2362	N	TYR	A	296	-79.897	-28.569	82.934	1.00	29.00
2363	CA	TYR	A	296	-80.815	-29.347	83.740	1.00	29.04
2364	CB	TYR	A	296	-80.213	-30.727	83.982	1.00	29.11
2365	CG	TYR	A	296	-81.156	-31.715	84.629	1.00	30.85
2366	CD1	TYR	A	296	-81.991	-32.509	83.861	1.00	32.89
2367	CE1	TYR	A	296	-82.836	-33.440	84.450	1.00	33.67
2368	CZ	TYR	A	296	-82.840	-33.561	85.817	1.00	34.54
2369	OH	TYR	A	296	-83.671	-34.467	86.421	1.00	37.48
2370	CE2	TYR	A	296	-82.019	-32.784	86.590	1.00	32.41
2371	CD2	TYR	A	296	-81.187	-31.874	85.999	1.00	31.07
2372	C	TYR	A	296	-81.060	-28.690	85.076	1.00	28.70
2373	O	TYR	A	296	-80.162	-28.592	85.900	1.00	29.09
2374	N	SER	A	297	-82.287	-28.272	85.313	1.00	28.63
2375	CA	SER	A	297	-82.616	-27.615	86.566	1.00	29.06
2376	CB	SER	A	297	-82.919	-26.147	86.316	1.00	28.05
2377	OG	SER	A	297	-83.933	-26.044	85.343	1.00	29.76
2378	C	SER	A	297	-83.822	-28.304	87.163	1.00	29.00
2379	O	SER	A	297	-84.625	-28.875	86.445	1.00	29.64
2380	N	VAL	A	298	-83.955	-28.260	88.478	1.00	29.88
2381	CA	VAL	A	298	-85.105	-28.897	89.118	1.00	30.60
2382	CB	VAL	A	298	-84.704	-30.153	89.923	1.00	30.18
2383	CG1	VAL	A	298	-84.147	-31.222	89.018	1.00	30.05
2384	CG2	VAL	A	298	-85.915	-30.714	90.653	1.00	31.51
2385	C	VAL	A	298	-85.761	-27.916	90.062	1.00	31.14
2386	O	VAL	A	298	-85.074	-27.194	90.772	1.00	30.60
2387	N	MET	A	299	-87.089	-27.881	90.062	1.00	32.41

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**FIGURE 3AU**

A	B	C	D	E	F	G	H	I	J
2388	CA	MET	A	299	-87.798	-27.045	91.009	1.00	34.10
2389	CB	MET	A	299	-88.944	-26.253	90.373	1.00	33.77
2390	CG	MET	A	299	-89.640	-25.335	91.396	1.00	34.32
2391	SD	MET	A	299	-91.132	-24.482	90.826	1.00	37.41
2392	CE	MET	A	299	-92.237	-25.756	90.878	1.00	38.42
2393	C	MET	A	299	-88.365	-27.877	92.148	1.00	35.43
2394	O	MET	A	299	-89.218	-28.731	91.934	1.00	35.56
2395	N	ASP	A	300	-87.899	-27.617	93.360	1.00	36.85
2396	CA	ASP	A	300	-88.474	-28.267	94.519	1.00	38.72
2397	CB	ASP	A	300	-87.435	-28.468	95.595	1.00	38.93
2398	CG	ASP	A	300	-87.085	-29.904	95.785	1.00	39.58
2399	OD1	ASP	A	300	-86.032	-30.175	96.381	1.00	41.59
2400	OD2	ASP	A	300	-87.807	-30.829	95.381	1.00	41.61
2401	C	ASP	A	300	-89.580	-27.428	95.104	1.00	40.22
2402	O	ASP	A	300	-89.564	-26.200	95.022	1.00	40.30
2403	N	ILE	A	301	-90.548	-28.096	95.709	1.00	41.62
2404	CA	ILE	A	301	-91.593	-27.392	96.422	1.00	43.20
2405	CB	ILE	A	301	-92.921	-27.522	95.686	1.00	43.15
2406	CG1	ILE	A	301	-92.843	-26.694	94.394	1.00	43.52
2407	CD1	ILE	A	301	-93.976	-26.916	93.432	1.00	42.31
2408	CG2	ILE	A	301	-94.046	-27.036	96.549	1.00	43.80
2409	C	ILE	A	301	-91.615	-27.910	97.863	1.00	44.31
2410	O	ILE	A	301	-91.919	-29.074	98.139	1.00	44.63
2411	N	CYS	A	302	-91.238	-27.041	98.785	1.00	45.44
2412	CA	CYS	A	302	-91.109	-27.450	100.163	1.00	46.51
2413	CB	CYS	A	302	-89.707	-27.128	100.654	1.00	46.72
2414	SG	CYS	A	302	-88.467	-27.641	99.438	1.00	47.60
2415	C	CYS	A	302	-92.180	-26.867	101.070	1.00	47.22
2416	O	CYS	A	302	-92.363	-25.651	101.150	1.00	46.52
2417	N	ASP	A	303	-92.901	-27.759	101.739	1.00	48.46
2418	CA	ASP	A	303	-93.955	-27.336	102.643	1.00	50.03
2419	CB	ASP	A	303	-95.231	-28.129	102.384	1.00	50.42
2420	CG	ASP	A	303	-95.793	-27.862	101.013	1.00	51.83
2421	OD1	ASP	A	303	-94.992	-27.833	100.055	1.00	53.94
2422	OD2	ASP	A	303	-97.004	-27.653	100.789	1.00	53.82
2423	C	ASP	A	303	-93.541	-27.454	104.093	1.00	50.54
2424	O	ASP	A	303	-92.888	-28.424	104.495	1.00	50.52
2425	N	TYR	A	304	-93.917	-26.454	104.876	1.00	51.37
2426	CA	TYR	A	304	-93.619	-26.471	106.293	1.00	52.61
2427	CB	TYR	A	304	-93.868	-25.100	106.894	1.00	52.69
2428	CG	TYR	A	304	-93.602	-25.048	108.374	1.00	53.78
2429	CD1	TYR	A	304	-92.301	-25.092	108.865	1.00	53.47
2430	CE1	TYR	A	304	-92.053	-25.043	110.209	1.00	54.32
2431	CZ	TYR	A	304	-93.111	-24.954	111.097	1.00	54.60
2432	OH	TYR	A	304	-92.863	-24.905	112.447	1.00	54.22
2433	CE2	TYR	A	304	-94.409	-24.908	110.636	1.00	54.38
2434	CD2	TYR	A	304	-94.649	-24.960	109.282	1.00	53.62
2435	C	TYR	A	304	-94.473	-27.520	107.009	1.00	53.58
2436	O	TYR	A	304	-95.697	-27.576	106.838	1.00	53.17
2437	N	ASP	A	305	-93.818	-28.368	107.793	1.00	54.91
2438	CA	ASP	A	305	-94.521	-29.400	108.548	1.00	56.29

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**FIGURE 3AV**

A	B	C	D	E	F	G	H	I	J
2439	CB	ASP	A	305	-93.736	-30.711	108.534	1.00	56.44
2440	CG	ASP	A	305	-94.559	-31.884	109.015	1.00	57.27
2441	OD1	ASP	A	305	-95.392	-31.680	109.924	1.00	58.51
2442	OD2	ASP	A	305	-94.445	-33.042	108.547	1.00	57.28
2443	C	ASP	A	305	-94.712	-28.904	109.975	1.00	56.77
2444	O	ASP	A	305	-93.772	-28.914	110.768	1.00	56.54
2445	N	GLU	A	306	-95.932	-28.459	110.273	1.00	57.77
2446	CA	GLU	A	306	-96.286	-27.889	111.578	1.00	58.94
2447	CB	GLU	A	306	-97.781	-27.553	111.642	1.00	59.22
2448	CG	GLU	A	306	-98.092	-26.078	111.493	1.00	60.83
2449	CD	GLU	A	306	-98.939	-25.559	112.638	1.00	63.17
2450	OE1	GLU	A	306	-100.132	-25.929	112.723	1.00	63.52
2451	OE2	GLU	A	306	-98.401	-24.787	113.464	1.00	63.58
2452	C	GLU	A	306	-95.926	-28.739	112.792	1.00	59.24
2453	O	GLU	A	306	-95.613	-28.209	113.854	1.00	59.09
2454	N	SER	A	307	-95.994	-30.057	112.637	1.00	59.75
2455	CA	SER	A	307	-95.678	-30.957	113.734	1.00	60.26
2456	CB	SER	A	307	-96.426	-32.288	113.576	1.00	60.62
2457	OG	SER	A	307	-96.398	-32.746	112.229	1.00	61.31
2458	C	SER	A	307	-94.173	-31.181	113.858	1.00	60.30
2459	O	SER	A	307	-93.601	-30.988	114.931	1.00	60.62
2460	N	SER	A	308	-93.540	-31.575	112.754	1.00	60.12
2461	CA	SER	A	308	-92.102	-31.851	112.717	1.00	59.53
2462	CB	SER	A	308	-91.703	-32.378	111.334	1.00	59.77
2463	OG	SER	A	308	-92.009	-33.753	111.176	1.00	60.20
2464	C	SER	A	308	-91.256	-30.621	113.011	1.00	59.06
2465	O	SER	A	308	-90.133	-30.732	113.512	1.00	59.11
2466	N	GLY	A	309	-91.790	-29.451	112.680	1.00	58.26
2467	CA	GLY	A	309	-91.049	-28.211	112.821	1.00	57.16
2468	C	GLY	A	309	-90.102	-28.063	111.641	1.00	56.45
2469	O	GLY	A	309	-89.250	-27.177	111.614	1.00	56.64
2470	N	ARG	A	310	-90.268	-28.931	110.648	1.00	55.33
2471	CA	ARG	A	310	-89.367	-28.950	109.505	1.00	54.21
2472	CB	ARG	A	310	-88.622	-30.288	109.442	1.00	54.66
2473	CG	ARG	A	310	-87.696	-30.525	110.627	1.00	56.06
2474	CD	ARG	A	310	-86.511	-31.445	110.328	1.00	59.60
2475	NE	ARG	A	310	-86.812	-32.862	110.539	1.00	62.08
2476	CZ	ARG	A	310	-87.479	-33.632	109.680	1.00	63.36
2477	NH1	ARG	A	310	-87.929	-33.132	108.532	1.00	63.22
2478	NH2	ARG	A	310	-87.696	-34.911	109.970	1.00	63.95
2479	C	ARG	A	310	-90.012	-28.641	108.151	1.00	52.85
2480	O	ARG	A	310	-91.212	-28.369	108.057	1.00	52.44
2481	N	TRP	A	311	-89.181	-28.684	107.111	1.00	51.08
2482	CA	TRP	A	311	-89.607	-28.414	105.747	1.00	49.29
2483	CB	TRP	A	311	-88.880	-27.188	105.202	1.00	48.37
2484	CG	TRP	A	311	-89.234	-25.910	105.882	1.00	44.19
2485	CD1	TRP	A	311	-88.713	-25.421	107.051	1.00	40.78
2486	NE1	TRP	A	311	-89.281	-24.206	107.351	1.00	38.90
2487	CE2	TRP	A	311	-90.184	-23.885	106.373	1.00	39.10
2488	CD2	TRP	A	311	-90.178	-24.939	105.430	1.00	40.46
2489	CE3	TRP	A	311	-91.019	-24.845	104.318	1.00	37.66

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**FIGURE 3AW**

A	B	C	D	E	F	G	H	I	J
2490	CZ3	TRP	A	311	-91.818	-23.734	104.185	1.00	35.16
2491	CH2	TRP	A	311	-91.809	-22.717	105.145	1.00	36.12
2492	CZ2	TRP	A	311	-90.997	-22.771	106.239	1.00	36.29
2493	C	TRP	A	311	-89.332	-29.630	104.860	1.00	49.37
2494	O	TRP	A	311	-88.208	-30.128	104.785	1.00	49.14
2495	N	ASN	A	312	-90.367	-30.120	104.199	1.00	49.46
2496	CA	ASN	A	312	-90.214	-31.296	103.357	1.00	50.06
2497	CB	ASN	A	312	-91.091	-32.442	103.876	1.00	50.41
2498	CG	ASN	A	312	-90.447	-33.202	105.038	1.00	52.10
2499	OD1	ASN	A	312	-90.693	-34.397	105.220	1.00	54.19
2500	ND2	ASN	A	312	-89.620	-32.512	105.826	1.00	53.48
2501	C	ASN	A	312	-90.504	-31.010	101.883	1.00	49.73
2502	O	ASN	A	312	-91.475	-30.332	101.553	1.00	49.59
2503	N	CYS	A	313	-89.643	-31.515	101.005	1.00	49.61
2504	CA	CYS	A	313	-89.821	-31.332	99.565	1.00	49.32
2505	CB	CYS	A	313	-88.549	-30.778	98.921	1.00	49.21
2506	SG	CYS	A	313	-87.730	-29.487	99.875	1.00	48.98
2507	C	CYS	A	313	-90.177	-32.654	98.910	1.00	49.28
2508	O	CYS	A	313	-89.299	-33.428	98.557	1.00	49.40
2509	N	LEU	A	314	-91.470	-32.905	98.751	1.00	49.23
2510	CA	LEU	A	314	-91.948	-34.125	98.122	1.00	49.20
2511	CB	LEU	A	314	-93.471	-34.083	98.003	1.00	49.51
2512	CG	LEU	A	314	-94.318	-34.759	99.090	1.00	50.18
2513	CD1	LEU	A	314	-96.651	-34.033	99.258	1.00	50.99
2514	CD2	LEU	A	314	-93.579	-34.843	100.417	1.00	51.00
2515	C	LEU	A	314	-91.328	-34.364	96.742	1.00	49.05
2516	O	LEU	A	314	-91.574	-33.617	95.801	1.00	48.88
2517	N	VAL	A	315	-90.522	-35.415	96.633	1.00	49.03
2518	CA	VAL	A	315	-89.916	-35.793	95.370	1.00	48.83
2519	CB	VAL	A	315	-89.304	-37.207	95.454	1.00	48.97
2520	CG1	VAL	A	315	-89.162	-37.824	94.070	1.00	49.30
2521	CG2	VAL	A	315	-87.955	-37.170	96.165	1.00	48.31
2522	C	VAL	A	315	-90.969	-35.761	94.272	1.00	48.78
2523	O	VAL	A	315	-90.692	-35.398	93.125	1.00	49.03
2524	N	ALA	A	316	-92.195	-36.107	94.635	1.00	48.31
2525	CA	ALA	A	316	-93.276	-36.135	93.662	1.00	47.94
2526	CB	ALA	A	316	-94.440	-36.957	94.186	1.00	47.92
2527	C	ALA	A	316	-93.762	-34.757	93.246	1.00	47.64
2528	O	ALA	A	316	-94.625	-34.648	92.385	1.00	48.02
2529	N	ARG	A	317	-93.238	-33.707	93.864	1.00	47.02
2530	CA	ARG	A	317	-93.675	-32.359	93.515	1.00	46.41
2531	CB	ARG	A	317	-94.189	-31.620	94.749	1.00	46.68
2532	CG	ARG	A	317	-95.340	-32.365	95.405	1.00	48.25
2533	CD	ARG	A	317	-96.471	-31.507	95.915	1.00	49.42
2534	NE	ARG	A	317	-96.072	-30.749	97.088	1.00	52.62
2535	CZ	ARG	A	317	-96.886	-30.434	98.086	1.00	53.61
2536	NH1	ARG	A	317	-96.420	-29.744	99.114	1.00	53.83
2537	NH2	ARG	A	317	-98.160	-30.812	98.061	1.00	53.37
2538	C	ARG	A	317	-92.588	-31.574	92.780	1.00	45.51
2539	O	ARG	A	317	-92.738	-30.391	92.509	1.00	45.08
2540	N	GLN	A	318	-91.502	-32.268	92.452	1.00	44.70



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**FIGURE 3AX**

A	B	C	D	E	F	G	H	I	J
2541	CA	GLN	A	318	-90.396	-31.688	91.715	1.00	43.92
2542	CB	GLN	A	318	-89.187	-32.613	91.761	1.00	44.06
2543	CG	GLN	A	318	-88.533	-32.679	93.122	1.00	45.59
2544	CD	GLN	A	318	-87.325	-33.589	93.142	1.00	48.07
2545	OE1	GLN	A	318	-86.775	-33.865	94.211	1.00	49.48
2546	NE2	GLN	A	318	-86.903	-34.056	91.965	1.00	47.11
2547	C	GLN	A	318	-90.791	-31.467	90.273	1.00	43.00
2548	O	GLN	A	318	-91.502	-32.277	89.686	1.00	43.13
2549	N	HIS	A	319	-90.345	-30.349	89.718	1.00	41.42
2550	CA	HIS	A	319	-90.590	-30.044	88.331	1.00	40.05
2551	CB	HIS	A	319	-91.456	-28.811	88.197	1.00	39.89
2552	CG	HIS	A	319	-92.885	-29.064	88.549	1.00	41.96
2553	ND1	HIS	A	319	-93.310	-29.243	89.849	1.00	43.05
2554	CE1	HIS	A	319	-94.612	-29.459	89.856	1.00	42.55
2555	NE2	HIS	A	319	-95.044	-29.439	88.608	1.00	42.08
2556	CD2	HIS	A	319	-93.984	-29.196	87.770	1.00	41.11
2557	C	HIS	A	319	-89.262	-29.871	87.638	1.00	38.85
2558	O	HIS	A	319	-88.434	-29.079	88.056	1.00	38.75
2559	N	ILE	A	320	-89.065	-30.630	86.574	1.00	37.80
2560	CA	ILE	A	320	-87.816	-30.592	85.849	1.00	36.71
2561	CB	ILE	A	320	-87.489	-31.985	85.362	1.00	36.70
2562	CG1	ILE	A	320	-87.306	-32.906	86.570	1.00	36.99
2563	CD1	ILE	A	320	-87.223	-34.374	86.214	1.00	38.96
2564	CG2	ILE	A	320	-86.279	-31.952	84.419	1.00	35.80
2565	C	ILE	A	320	-87.867	-29.637	84.659	1.00	36.24
2566	O	ILE	A	320	-88.852	-29.578	83.938	1.00	34.52
2567	N	GLU	A	321	-86.790	-28.877	84.486	1.00	36.11
2568	CA	GLU	A	321	-86.664	-28.005	83.330	1.00	36.25
2569	CB	GLU	A	321	-86.914	-26.553	83.702	1.00	35.46
2570	CG	GLU	A	321	-87.255	-25.694	82.512	1.00	37.29
2571	CD	GLU	A	321	-87.300	-24.224	82.859	1.00	39.57
2572	OE1	GLU	A	321	-87.550	-23.910	84.050	1.00	41.03
2573	OE2	GLU	A	321	-87.084	-23.388	81.944	1.00	40.17
2574	C	GLU	A	321	-85.253	-28.202	82.786	1.00	36.34
2575	O	GLU	A	321	-84.269	-27.822	83.419	1.00	36.18
2576	N	MET	A	322	-85.176	-28.826	81.618	1.00	35.99
2577	CA	MET	A	322	-83.916	-29.136	80.984	1.00	35.89
2578	CB	MET	A	322	-83.664	-30.649	81.007	1.00	36.45
2579	CG	MET	A	322	-84.751	-31.485	80.328	1.00	40.37
2580	SD	MET	A	322	-84.281	-33.246	80.076	1.00	49.26
2581	CE	MET	A	322	-84.432	-33.862	81.690	1.00	46.43
2582	C	MET	A	322	-83.970	-28.630	79.558	1.00	35.10
2583	O	MET	A	322	-85.007	-28.181	79.084	1.00	34.63
2584	N	SER	A	323	-82.844	-28.683	78.869	1.00	34.71
2585	CA	SER	A	323	-82.823	-28.255	77.475	1.00	34.46
2586	CB	SER	A	323	-82.292	-26.819	77.337	1.00	34.00
2587	OG	SER	A	323	-82.045	-26.519	75.971	1.00	34.22
2588	C	SER	A	323	-81.936	-29.205	76.713	1.00	33.99
2589	O	SER	A	323	-80.885	-29.587	77.196	1.00	33.94
2590	N	THR	A	324	-82.356	-29.575	75.515	1.00	34.42
2591	CA	THR	A	324	-81.558	-30.470	74.684	1.00	34.27

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**FIGURE 3AY**

A	B	C	D	E	F	G	H	I	J
2592	CB	THR	A	324	-82.457	-31.435	73.901	1.00	34.74
2593	OG1	THR	A	324	-83.248	-30.697	72.960	1.00	35.02
2594	CG2	THR	A	324	-83.496	-32.057	74.843	1.00	34.52
2595	C	THR	A	324	-80.682	-29.691	73.730	1.00	33.76
2596	O	THR	A	324	-79.699	-30.225	73.230	1.00	34.89
2597	N	THR	A	325	-81.006	-28.429	73.474	1.00	32.42
2598	CA	THR	A	325	-80.173	-27.662	72.553	1.00	31.29
2599	CB	THR	A	325	-81.032	-26.912	71.555	1.00	31.37
2600	OG1	THR	A	325	-81.947	-26.079	72.275	1.00	30.65
2601	CG2	THR	A	325	-81.921	-27.889	70.779	1.00	31.29
2602	C	THR	A	325	-79.226	-26.662	73.206	1.00	30.45
2603	O	THR	A	325	-78.405	-26.080	72.522	1.00	30.08
2604	N	GLY	A	326	-79.361	-26.433	74.505	1.00	29.74
2605	CA	GLY	A	326	-78.501	-25.480	75.183	1.00	29.11
2606	C	GLY	A	326	-78.619	-25.523	76.682	1.00	28.22
2607	O	GLY	A	326	-78.786	-26.595	77.250	1.00	29.13
2608	N	TRP	A	327	-78.524	-24.354	77.316	1.00	27.43
2609	CA	TRP	A	327	-78.630	-24.194	78.773	1.00	25.97
2610	CB	TRP	A	327	-77.826	-22.960	79.231	1.00	26.00
2611	CG	TRP	A	327	-78.213	-21.693	78.496	1.00	23.64
2612	CD1	TRP	A	327	-79.052	-20.721	78.940	1.00	22.57
2613	NE1	TRP	A	327	-79.166	-19.716	78.003	1.00	22.25
2614	CE2	TRP	A	327	-78.399	-20.030	76.913	1.00	23.44
2615	CD2	TRP	A	327	-77.775	-21.272	77.188	1.00	23.16
2616	CE3	TRP	A	327	-76.914	-21.811	76.224	1.00	21.49
2617	CZ3	TRP	A	327	-76.714	-21.108	75.030	1.00	21.48
2618	CH2	TRP	A	327	-77.367	-19.888	74.777	1.00	17.89
2619	CZ2	TRP	A	327	-78.196	-19.322	75.707	1.00	22.30
2620	C	TRP	A	327	-80.095	-23.965	79.056	1.00	25.40
2621	O	TRP	A	327	-80.870	-23.928	78.129	1.00	24.97
2622	N	VAL	A	328	-80.484	-23.809	80.318	1.00	25.17
2623	CA	VAL	A	328	-81.888	-23.555	80.632	1.00	26.17
2624	CB	VAL	A	328	-82.437	-24.498	81.750	1.00	26.11
2625	CG1	VAL	A	328	-81.397	-24.780	82.760	1.00	27.28
2626	CG2	VAL	A	328	-83.660	-23.883	82.430	1.00	26.46
2627	C	VAL	A	328	-82.142	-22.114	81.021	1.00	25.84
2628	O	VAL	A	328	-81.375	-21.534	81.763	1.00	27.58
2629	N	GLY	A	329	-83.232	-21.542	80.525	1.00	26.06
2630	CA	GLY	A	329	-83.569	-20.161	80.813	1.00	25.46
2631	C	GLY	A	329	-82.736	-19.201	79.984	1.00	25.11
2632	O	GLY	A	329	-81.795	-19.611	79.306	1.00	24.50
2633	N	ARG	A	330	-83.071	-17.918	80.041	1.00	25.08
2634	CA	ARG	A	330	-82.344	-16.953	79.236	1.00	25.69
2635	CB	ARG	A	330	-83.132	-15.640	79.068	1.00	26.08
2636	CG	ARG	A	330	-84.259	-15.839	78.002	1.00	26.77
2637	CD	ARG	A	330	-84.897	-14.595	77.357	1.00	26.77
2638	NE	ARG	A	330	-86.029	-14.276	78.180	1.00	32.62
2639	CZ	ARG	A	330	-87.305	-14.271	77.811	1.00	30.25
2640	NH1	ARG	A	330	-88.199	-14.004	78.748	1.00	30.22
2641	NH2	ARG	A	330	-87.687	-14.500	76.553	1.00	27.09
2642	C	ARG	A	330	-80.933	-16.836	79.781	1.00	25.65

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**FIGURE 3AZ**

A	B	C	D	E	F	G	H	I	J
2643	O	ARG	A	330	-79.972	-17.123	79.092	1.00	24.20
2644	N	PHE	A	331	-80.828	-16.476	81.052	1.00	26.79
2645	CA	PHE	A	331	-79.551	-16.493	81.721	1.00	27.54
2646	CB	PHE	A	331	-79.146	-15.097	82.172	1.00	26.96
2647	CG	PHE	A	331	-78.881	-14.155	81.036	1.00	27.24
2648	CD1	PHE	A	331	-77.597	-13.961	80.559	1.00	27.56
2649	CE1	PHE	A	331	-77.369	-13.070	79.515	1.00	28.57
2650	CZ	PHE	A	331	-78.436	-12.379	78.939	1.00	23.11
2651	CE2	PHE	A	331	-79.679	-12.570	79.402	1.00	24.68
2652	CD2	PHE	A	331	-79.915	-13.447	80.449	1.00	26.99
2653	C	PHE	A	331	-79.621	-17.467	82.892	1.00	28.01
2654	O	PHE	A	331	-78.595	-17.860	83.436	1.00	28.75
2655	N	ARG	A	332	-80.838	-17.869	83.242	1.00	28.70
2656	CA	ARG	A	332	-81.105	-18.772	84.369	1.00	29.58
2657	CB	ARG	A	332	-80.890	-18.059	85.712	1.00	29.72
2658	CG	ARG	A	332	-81.986	-17.027	86.029	1.00	32.07
2659	CD	ARG	A	332	-81.631	-15.977	87.078	1.00	39.24
2660	NE	ARG	A	332	-81.351	-14.675	86.443	1.00	43.86
2661	CZ	ARG	A	332	-80.130	-14.236	86.140	1.00	44.14
2662	NH1	ARG	A	332	-79.063	-14.982	86.421	1.00	43.26
2663	NH2	ARG	A	332	-79.975	-13.053	85.560	1.00	43.53
2664	C	ARG	A	332	-82.569	-19.138	84.260	1.00	29.56
2665	O	ARG	A	332	-83.330	-18.409	83.644	1.00	29.36
2666	N	PRO	A	333	-82.977	-20.250	84.858	1.00	29.98
2667	CA	PRO	A	333	-84.391	-20.636	84.821	1.00	30.22
2668	CB	PRO	A	333	-84.457	-21.870	85.729	1.00	30.22
2669	CG	PRO	A	333	-83.042	-22.375	85.822	1.00	30.06
2670	CD	PRO	A	333	-82.134	-21.218	85.583	1.00	29.85
2671	C	PRO	A	333	-85.234	-19.500	85.387	1.00	30.43
2672	O	PRO	A	333	-84.814	-18.797	86.314	1.00	30.71
2673	N	SER	A	334	-86.404	-19.329	84.803	1.00	30.67
2674	CA	SER	A	334	-87.360	-18.299	85.164	1.00	32.06
2675	CB	SER	A	334	-88.538	-18.335	84.182	1.00	32.08
2676	OG	SER	A	334	-88.289	-17.506	83.072	1.00	34.32
2677	C	SER	A	334	-87.948	-18.501	86.530	1.00	32.20
2678	O	SER	A	334	-88.018	-19.616	87.027	1.00	32.94
2679	N	GLU	A	335	-88.425	-17.411	87.110	1.00	32.23
2680	CA	GLU	A	335	-89.071	-17.466	88.392	1.00	32.12
2681	CB	GLU	A	335	-88.936	-16.108	89.108	1.00	32.09
2682	CG	GLU	A	335	-89.910	-15.015	88.686	1.00	31.46
2683	CD	GLU	A	335	-89.628	-14.410	87.302	1.00	33.59
2684	OE1	GLU	A	335	-88.509	-14.579	86.758	1.00	32.65
2685	OE2	GLU	A	335	-90.546	-13.745	86.754	1.00	33.53
2686	C	GLU	A	335	-90.539	-17.858	88.180	1.00	32.42
2687	O	GLU	A	335	-91.144	-17.504	87.181	1.00	31.80
2688	N	PRO	A	336	-91.096	-18.645	89.090	1.00	32.87
2689	CA	PRO	A	336	-92.519	-18.982	89.014	1.00	33.39
2690	CB	PRO	A	336	-92.611	-20.258	89.846	1.00	33.25
2691	CG	PRO	A	336	-91.500	-20.140	90.835	1.00	32.41
2692	CD	PRO	A	336	-90.419	-19.330	90.208	1.00	32.30
2693	C	PRO	A	336	-93.408	-17.899	89.642	1.00	33.76

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**FIGURE 3BA**

A	B	C	D	E	F	G	H	I	J
2694	O	PRO	A	336	-92.997	-17.222	90.593	1.00	33.37
2695	N	HIS	A	337	-94.602	-17.732	89.081	1.00	33.63
2696	CA	HIS	A	337	-95.606	-16.851	89.648	1.00	33.97
2697	CB	HIS	A	337	-96.009	-15.782	88.647	1.00	34.05
2698	CG	HIS	A	337	-94.912	-14.796	88.367	1.00	33.96
2699	ND1	HIS	A	337	-93.779	-15.127	87.652	1.00	32.59
2700	CE1	HIS	A	337	-92.981	-14.079	87.591	1.00	31.42
2701	NE2	HIS	A	337	-93.554	-13.083	88.240	1.00	32.74
2702	CD2	HIS	A	337	-94.757	-13.506	88.744	1.00	31.64
2703	C	HIS	A	337	-96.785	-17.726	90.075	1.00	34.33
2704	O	HIS	A	337	-97.471	-18.315	89.247	1.00	34.33
2705	N	PHE	A	338	-96.977	-17.802	91.388	1.00	34.78
2706	CA	PHE	A	338	-97.942	-18.660	92.053	1.00	34.88
2707	CB	PHE	A	338	-97.402	-18.999	93.443	1.00	34.38
2708	CG	PHE	A	338	-96.348	-20.069	93.448	1.00	33.53
2709	CD1	PHE	A	338	-95.016	-19.742	93.607	1.00	30.96
2710	CE1	PHE	A	338	-94.060	-20.719	93.622	1.00	30.30
2711	CZ	PHE	A	338	-94.425	-22.036	93.485	1.00	31.10
2712	CE2	PHE	A	338	-95.749	-22.374	93.356	1.00	30.16
2713	CD2	PHE	A	338	-96.697	-21.404	93.330	1.00	30.81
2714	C	PHE	A	338	-99.318	-18.062	92.269	1.00	35.84
2715	O	PHE	A	338	-99.451	-16.885	92.610	1.00	36.00
2716	N	THR	A	339	-100.342	-18.900	92.121	1.00	36.76
2717	CA	THR	A	339	-101.703	-18.497	92.436	1.00	37.70
2718	CB	THR	A	339	-102.713	-19.592	92.012	1.00	37.86
2719	OG1	THR	A	339	-102.243	-20.875	92.445	1.00	37.50
2720	CG2	THR	A	339	-102.750	-19.739	90.509	1.00	36.53
2721	C	THR	A	339	-101.769	-18.288	93.945	1.00	38.58
2722	O	THR	A	339	-101.026	-18.915	94.693	1.00	38.09
2723	N	LEU	A	340	-102.654	-17.402	94.386	1.00	40.19
2724	CA	LEU	A	340	-102.786	-17.077	95.800	1.00	41.82
2725	CB	LEU	A	340	-104.125	-16.373	96.066	1.00	42.49
2726	CG	LEU	A	340	-104.246	-15.436	97.286	1.00	44.34
2727	CD1	LEU	A	340	-104.163	-13.956	96.871	1.00	46.76
2728	CD2	LEU	A	340	-103.221	-15.745	98.373	1.00	44.87
2729	C	LEU	A	340	-102.673	-18.311	96.683	1.00	42.12
2730	O	LEU	A	340	-101.925	-18.308	97.652	1.00	42.46
2731	N	ASP	A	341	-103.416	-19.365	96.350	1.00	42.85
2732	CA	ASP	A	341	-103.374	-20.612	97.121	1.00	43.36
2733	CB	ASP	A	341	-104.599	-21.486	96.824	1.00	43.86
2734	CG	ASP	A	341	-104.579	-22.085	95.422	1.00	45.87
2735	OD1	ASP	A	341	-105.638	-22.603	94.986	1.00	46.81
2736	OD2	ASP	A	341	-103.557	-22.101	94.693	1.00	48.08
2737	C	ASP	A	341	-102.087	-21.407	96.885	1.00	43.25
2738	O	ASP	A	341	-101.795	-22.373	97.603	1.00	43.43
2739	N	GLY	A	342	-101.340	-21.015	95.858	1.00	42.65
2740	CA	GLY	A	342	-100.061	-21.630	95.561	1.00	42.59
2741	C	GLY	A	342	-100.063	-23.104	95.215	1.00	42.29
2742	O	GLY	A	342	-99.062	-23.789	95.427	1.00	42.17
2743	N	ASN	A	343	-101.172	-23.609	94.694	1.00	41.97
2744	CA	ASN	A	343	-101.206	-25.013	94.292	1.00	42.26

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**FIGURE 3 BB**

A	B	C	D	E	F	G	H	I	J
2745	CB	ASN	A	343	-102.560	-25.638	94.604	1.00	42.41
2746	CG	ASN	A	343	-102.826	-25.720	96.077	1.00	42.16
2747	OD1	ASN	A	343	-102.034	-26.277	96.829	1.00	40.86
2748	ND2	ASN	A	343	-103.942	-25.152	96.504	1.00	42.66
2749	C	ASN	A	343	-100.947	-25.089	92.803	1.00	42.12
2750	O	ASN	A	343	-100.891	-26.164	92.198	1.00	42.06
2751	N	SER	A	344	-100.784	-23.912	92.225	1.00	41.63
2752	CA	SER	A	344	-100.589	-23.788	90.815	1.00	41.38
2753	CB	SER	A	344	-101.937	-23.488	90.185	1.00	41.06
2754	OG	SER	A	344	-101.754	-22.890	88.931	1.00	43.21
2755	C	SER	A	344	-99.613	-22.640	90.563	1.00	40.83
2756	O	SER	A	344	-99.430	-21.781	91.433	1.00	41.01
2757	N	PHE	A	345	-98.980	-22.626	89.389	1.00	39.99
2758	CA	PHE	A	345	-98.089	-21.515	89.041	1.00	39.11
2759	CB	PHE	A	345	-96.775	-21.574	89.824	1.00	38.62
2760	CG	PHE	A	345	-95.877	-22.708	89.430	1.00	38.69
2761	CD1	PHE	A	345	-95.012	-22.585	88.362	1.00	39.64
2762	CE1	PHE	A	345	-94.174	-23.607	88.011	1.00	39.61
2763	CZ	PHE	A	345	-94.201	-24.780	88.721	1.00	41.19
2764	CE2	PHE	A	345	-95.062	-24.915	89.793	1.00	40.32
2765	CD2	PHE	A	345	-95.883	-23.885	90.141	1.00	38.89
2766	C	PHE	A	345	-97.811	-21.336	87.545	1.00	38.58
2767	O	PHE	A	345	-97.966	-22.261	86.732	1.00	38.07
2768	N	TYR	A	346	-97.405	-20.119	87.203	1.00	37.74
2769	CA	TYR	A	346	-97.022	-19.792	85.845	1.00	37.17
2770	CB	TYR	A	346	-97.808	-18.584	85.370	1.00	37.10
2771	CG	TYR	A	346	-99.309	-18.733	85.534	1.00	37.95
2772	CD1	TYR	A	346	-100.101	-19.168	84.484	1.00	36.89
2773	CE1	TYR	A	346	-101.466	-19.299	84.627	1.00	37.37
2774	CZ	TYR	A	346	-102.062	-18.996	85.832	1.00	38.06
2775	OH	TYR	A	346	-103.432	-19.134	85.977	1.00	37.64
2776	CE2	TYR	A	346	-101.300	-18.569	86.894	1.00	37.43
2777	CD2	TYR	A	346	-99.932	-18.432	86.742	1.00	38.88
2778	C	TYR	A	346	-95.530	-19.489	85.795	1.00	36.89
2779	O	TYR	A	346	-94.988	-18.854	86.707	1.00	36.84
2780	N	LYS	A	347	-94.852	-20.020	84.779	1.00	36.40
2781	CA	LYS	A	347	-93.465	-19.644	84.497	1.00	35.95
2782	CB	LYS	A	347	-92.414	-20.410	85.313	1.00	36.20
2783	CG	LYS	A	347	-92.486	-21.884	85.218	1.00	37.74
2784	CD	LYS	A	347	-91.106	-22.494	85.091	1.00	38.65
2785	CE	LYS	A	347	-90.068	-21.885	85.997	1.00	39.61
2786	NZ	LYS	A	347	-88.672	-22.327	85.572	1.00	38.56
2787	C	LYS	A	347	-93.157	-19.717	83.017	1.00	35.02
2788	O	LYS	A	347	-93.727	-20.509	82.285	1.00	35.33
2789	N	ILE	A	348	-92.265	-18.853	82.582	1.00	34.11
2790	CA	ILE	A	348	-91.862	-18.819	81.193	1.00	33.67
2791	CB	ILE	A	348	-91.230	-17.448	80.894	1.00	33.81
2792	CG1	ILE	A	348	-92.251	-16.348	81.224	1.00	31.92
2793	CD1	ILE	A	348	-91.740	-14.952	81.028	1.00	31.88
2794	CG2	ILE	A	348	-90.719	-17.392	79.449	1.00	33.28
2795	C	ILE	A	348	-90.873	-19.941	80.924	1.00	33.21

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**FIGURE 3 BC**

A	B	C	D	E	F	G	H	I	J
2796	O	ILE	A	348	-89.927	-20.097	81.665	1.00	32.34
2797	N	ILE	A	349	-91.135	-20.753	79.903	1.00	33.04
2798	CA	ILE	A	349	-90.210	-21.816	79.501	1.00	33.61
2799	CB	ILE	A	349	-90.548	-23.176	80.157	1.00	33.58
2800	CG1	ILE	A	349	-91.881	-23.716	79.650	1.00	34.71
2801	CD1	ILE	A	349	-92.226	-25.061	80.207	1.00	35.03
2802	CG2	ILE	A	349	-90.598	-23.043	81.680	1.00	35.71
2803	C	ILE	A	349	-90.279	-21.916	77.998	1.00	33.01
2804	O	ILE	A	349	-91.234	-21.434	77.401	1.00	32.93
2805	N	SER	A	350	-89.267	-22.484	77.364	1.00	32.79
2806	CA	SER	A	350	-89.350	-22.571	75.918	1.00	33.90
2807	CB	SER	A	350	-87.979	-22.676	75.246	1.00	33.49
2808	OG	SER	A	350	-87.082	-23.311	76.112	1.00	36.71
2809	C	SER	A	350	-90.286	-23.695	75.495	1.00	33.70
2810	O	SER	A	350	-90.244	-24.805	76.014	1.00	32.51
2811	N	ASN	A	351	-91.143	-23.384	74.546	1.00	34.29
2812	CA	ASN	A	351	-92.076	-24.373	74.092	1.00	35.48
2813	CB	ASN	A	351	-93.260	-23.708	73.405	1.00	35.01
2814	CG	ASN	A	351	-92.873	-23.061	72.120	1.00	34.86
2815	OD1	ASN	A	351	-91.799	-23.339	71.587	1.00	33.30
2816	ND2	ASN	A	351	-93.736	-22.187	71.605	1.00	32.56
2817	C	ASN	A	351	-91.404	-25.389	73.174	1.00	36.63
2818	O	ASN	A	351	-90.170	-25.466	73.081	1.00	36.74
2819	N	GLU	A	352	-92.235	-26.170	72.501	1.00	37.65
2820	CA	GLU	A	352	-91.763	-27.210	71.608	1.00	38.55
2821	CB	GLU	A	352	-92.931	-28.132	71.208	1.00	39.06
2822	CG	GLU	A	352	-93.957	-27.515	70.264	1.00	41.38
2823	CD	GLU	A	352	-94.840	-26.444	70.910	1.00	46.16
2824	OE1	GLU	A	352	-95.497	-25.706	70.138	1.00	45.81
2825	OE2	GLU	A	352	-94.890	-26.335	72.175	1.00	47.75
2826	C	GLU	A	352	-91.058	-26.629	70.373	1.00	38.16
2827	O	GLU	A	352	-90.167	-27.272	69.813	1.00	38.50
2828	N	GLU	A	353	-91.453	-25.425	69.958	1.00	37.12
2829	CA	GLU	A	353	-90.826	-24.766	68.818	1.00	36.69
2830	CB	GLU	A	353	-91.739	-23.695	68.189	1.00	37.21
2831	CG	GLU	A	353	-93.211	-23.990	67.932	1.00	40.63
2832	CD	GLU	A	353	-93.980	-22.710	67.572	1.00	44.93
2833	OE1	GLU	A	353	-94.581	-22.664	66.481	1.00	46.68
2834	OE2	GLU	A	353	-93.976	-21.730	68.374	1.00	46.88
2835	C	GLU	A	353	-89.572	-24.010	69.262	1.00	35.39
2836	O	GLU	A	353	-88.890	-23.403	68.442	1.00	35.44
2837	N	GLY	A	354	-89.302	-23.989	70.559	1.00	33.96
2838	CA	GLY	A	354	-88.195	-23.201	71.071	1.00	32.44
2839	C	GLY	A	354	-88.505	-21.733	71.367	1.00	31.46
2840	O	GLY	A	354	-87.591	-20.940	71.593	1.00	30.85
2841	N	TYR	A	355	-89.778	-21.345	71.339	1.00	30.91
2842	CA	TYR	A	355	-90.122	-19.981	71.726	1.00	30.80
2843	CB	TYR	A	355	-91.209	-19.401	70.829	1.00	30.63
2844	CG	TYR	A	355	-90.695	-19.107	69.445	1.00	32.02
2845	CD1	TYR	A	355	-90.762	-20.063	68.434	1.00	32.17
2846	CE1	TYR	A	355	-90.278	-19.799	67.179	1.00	31.62

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**FIGURE 3 BD**

A	B	C	D	E	F	G	H	I	J
2847	CZ	TYR	A	355	-89.707	-18.571	66.920	1.00	31.90
2848	OH	TYR	A	355	-89.213	-18.276	65.670	1.00	33.67
2849	CE2	TYR	A	355	-89.625	-17.622	67.900	1.00	32.64
2850	CD2	TYR	A	355	-90.111	-17.893	69.154	1.00	32.64
2851	C	TYR	A	355	-90.508	-19.943	73.206	1.00	30.34
2852	O	TYR	A	355	-91.203	-20.837	73.693	1.00	30.13
2853	N	ARG	A	356	-90.030	-18.934	73.927	1.00	29.55
2854	CA	ARG	A	356	-90.288	-18.856	75.370	1.00	29.53
2855	CB	ARG	A	356	-89.219	-18.017	76.081	1.00	29.51
2856	CG	ARG	A	356	-88.022	-18.853	76.506	1.00	29.63
2857	CD	ARG	A	356	-86.716	-18.084	76.730	1.00	26.56
2858	NE	ARG	A	356	-85.607	-18.871	76.218	1.00	26.34
2859	CZ	ARG	A	356	-85.111	-19.949	76.817	1.00	26.06
2860	NH1	ARG	A	356	-85.589	-20.367	77.982	1.00	24.33
2861	NH2	ARG	A	356	-84.128	-20.614	76.244	1.00	25.83
2862	C	ARG	A	356	-91.684	-18.332	75.665	1.00	29.24
2863	O	ARG	A	356	-92.032	-17.226	75.267	1.00	29.37
2864	N	HIS	A	357	-92.476	-19.131	76.370	1.00	29.34
2865	CA	HIS	A	357	-93.877	-18.794	76.610	1.00	29.87
2866	CB	HIS	A	357	-94.789	-19.475	75.578	1.00	29.04
2867	CG	HIS	A	357	-94.868	-18.755	74.271	1.00	27.31
2868	ND1	HIS	A	357	-95.532	-17.554	74.122	1.00	26.59
2869	CE1	HIS	A	357	-95.428	-17.148	72.868	1.00	25.30
2870	NE2	HIS	A	357	-94.725	-18.044	72.198	1.00	26.82
2871	CD2	HIS	A	357	-94.363	-19.059	73.053	1.00	25.52
2872	C	HIS	A	357	-94.303	-19.205	77.996	1.00	31.03
2873	O	HIS	A	357	-93.626	-19.987	78.650	1.00	31.02
2874	N	ILE	A	358	-95.450	-18.684	78.432	1.00	32.92
2875	CA	ILE	A	358	-95.956	-18.941	79.778	1.00	33.30
2876	CB	ILE	A	358	-96.939	-17.868	80.182	1.00	32.95
2877	CG1	ILE	A	358	-96.295	-16.492	80.092	1.00	32.51
2878	CD1	ILE	A	358	-97.298	-15.334	80.019	1.00	31.79
2879	CG2	ILE	A	358	-97.423	-18.132	81.607	1.00	33.53
2880	C	ILE	A	358	-96.639	-20.289	79.859	1.00	34.76
2881	O	ILE	A	358	-97.518	-20.607	79.068	1.00	34.56
2882	N	CYS	A	359	-96.238	-21.082	80.834	1.00	36.20
2883	CA	CYS	A	359	-96.809	-22.394	80.995	1.00	37.68
2884	CB	CYS	A	359	-95.733	-23.467	80.813	1.00	38.06
2885	SG	CYS	A	359	-96.311	-24.979	80.022	1.00	41.36
2886	C	CYS	A	359	-97.420	-22.443	82.389	1.00	38.10
2887	O	CYS	A	359	-96.846	-21.926	83.348	1.00	37.64
2888	N	TYR	A	360	-98.600	-23.044	82.465	1.00	38.74
2889	CA	TYR	A	360	-99.376	-23.151	83.677	1.00	39.80
2890	CB	TYR	A	360	-100.848	-23.059	83.298	1.00	40.29
2891	CG	TYR	A	360	-101.824	-23.098	84.444	1.00	41.20
2892	CD1	TYR	A	360	-103.034	-23.758	84.315	1.00	40.57
2893	CE1	TYR	A	360	-103.933	-23.804	85.353	1.00	42.25
2894	CZ	TYR	A	360	-103.633	-23.175	86.544	1.00	43.37
2895	OH	TYR	A	360	-104.532	-23.229	87.588	1.00	43.69
2896	CE2	TYR	A	360	-102.435	-22.509	86.696	1.00	42.16
2897	CD2	TYR	A	360	-101.542	-22.472	85.651	1.00	42.27

**REPLACEMENT SHEET**  
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**FIGURE 3 BE**

A	B	C	D	E	F	G	H	I	J
2898	C	TYR	A	360	-99.078	-24.481	84.332	1.00	40.54
2899	O	TYR	A	360	-99.267	-25.529	83.738	1.00	41.09
2900	N	PHE	A	361	-98.572	-24.449	85.551	1.00	41.60
2901	CA	PHE	A	361	-98.272	-25.687	86.247	1.00	42.72
2902	CB	PHE	A	361	-96.852	-25.645	86.836	1.00	42.51
2903	CG	PHE	A	361	-95.756	-25.536	85.808	1.00	41.05
2904	CD1	PHE	A	361	-94.860	-26.568	85.625	1.00	41.28
2905	CE1	PHE	A	361	-93.838	-26.467	84.693	1.00	41.21
2906	CZ	PHE	A	361	-93.715	-25.322	83.937	1.00	40.10
2907	CE2	PHE	A	361	-94.603	-24.290	84.116	1.00	38.79
2908	CD2	PHE	A	361	-95.612	-24.397	85.046	1.00	39.46
2909	C	PHE	A	361	-99.262	-25.913	87.381	1.00	43.89
2910	O	PHE	A	361	-99.809	-24.964	87.931	1.00	43.81
2911	N	GLN	A	362	-99.510	-27.175	87.711	1.00	45.58
2912	CA	GLN	A	362	-100.272	-27.499	88.912	1.00	47.47
2913	CB	GLN	A	362	-101.451	-28.440	88.616	1.00	48.12
2914	CG	GLN	A	362	-102.775	-28.051	89.306	1.00	49.81
2915	CD	GLN	A	362	-103.062	-28.830	90.613	1.00	53.36
2916	OE1	GLN	A	362	-102.728	-28.369	91.715	1.00	52.94
2917	NE2	GLN	A	362	-103.704	-29.998	90.483	1.00	53.59
2918	C	GLN	A	362	-99.247	-28.158	89.821	1.00	48.25
2919	O	GLN	A	362	-98.430	-28.974	89.376	1.00	48.02
2920	N	ILE	A	363	-99.252	-27.778	91.087	1.00	49.55
2921	CA	ILE	A	363	-98.246	-28.286	92.008	1.00	51.02
2922	CB	ILE	A	363	-98.629	-27.965	93.479	1.00	51.02
2923	CG1	ILE	A	363	-98.133	-26.571	93.851	1.00	51.54
2924	CD1	ILE	A	363	-96.885	-26.159	93.127	1.00	51.02
2925	CG2	ILE	A	363	-98.007	-28.949	94.436	1.00	50.93
2926	C	ILE	A	363	-98.004	-29.771	91.825	1.00	52.01
2927	O	ILE	A	363	-96.858	-30.214	91.808	1.00	52.17
2928	N	ASP	A	364	-99.084	-30.527	91.633	1.00	53.58
2929	CA	ASP	A	364	-99.014	-31.992	91.612	1.00	54.84
2930	CB	ASP	A	364	-100.112	-32.558	92.521	1.00	55.24
2931	CG	ASP	A	364	-99.788	-32.388	93.981	1.00	56.58
2932	OD1	ASP	A	364	-98.635	-32.680	94.350	1.00	59.18
2933	OD2	ASP	A	364	-100.600	-31.958	94.831	1.00	58.32
2934	C	ASP	A	364	-99.037	-32.757	90.276	1.00	55.38
2935	O	ASP	A	364	-99.183	-33.983	90.298	1.00	55.51
2936	N	LYS	A	365	-98.917	-32.080	89.131	1.00	55.78
2937	CA	LYS	A	365	-98.863	-32.809	87.855	1.00	56.42
2938	CB	LYS	A	365	-100.170	-32.712	87.048	1.00	56.40
2939	CG	LYS	A	365	-100.577	-31.309	86.667	1.00	57.92
2940	CD	LYS	A	365	-101.169	-31.221	85.252	1.00	60.34
2941	CE	LYS	A	365	-102.600	-31.746	85.151	1.00	61.89
2942	NZ	LYS	A	365	-102.681	-33.100	84.496	1.00	62.69
2943	C	LYS	A	365	-97.652	-32.444	86.992	1.00	56.62
2944	O	LYS	A	365	-97.321	-31.265	86.818	1.00	57.24
2945	N	LYS	A	366	-97.008	-33.465	86.437	1.00	56.42
2946	CA	LYS	A	366	-95.798	-33.277	85.641	1.00	55.99
2947	CB	LYS	A	366	-95.240	-34.629	85.170	1.00	56.58
2948	CG	LYS	A	366	-94.036	-34.533	84.209	1.00	57.83



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**FIGURE 3 BF**

A	B	C	D	E	F	G	H	I	J
2949	CD	LYS	A	366	-92.819	-33.841	84.852	1.00	59.89
2950	CE	LYS	A	366	-92.654	-32.382	84.393	1.00	60.92
2951	NZ	LYS	A	366	-91.681	-31.585	85.205	1.00	60.11
2952	C	LYS	A	366	-95.952	-32.344	84.447	1.00	55.08
2953	O	LYS	A	366	-95.009	-31.666	84.068	1.00	55.04
2954	N	ASP	A	367	-97.128	-32.281	83.848	1.00	54.12
2955	CA	ASP	A	367	-97.211	-31.500	82.619	1.00	52.94
2956	CB	ASP	A	367	-97.631	-32.379	81.445	1.00	53.37
2957	CG	ASP	A	367	-96.519	-33.310	81.006	1.00	54.80
2958	OD1	ASP	A	367	-96.712	-34.545	81.071	1.00	55.44
2959	OD2	ASP	A	367	-95.408	-32.888	80.595	1.00	57.04
2960	C	ASP	A	367	-98.010	-30.203	82.673	1.00	51.72
2961	O	ASP	A	367	-99.181	-30.177	83.053	1.00	51.87
2962	N	CYS	A	368	-97.349	-29.129	82.263	1.00	49.45
2963	CA	CYS	A	368	-97.957	-27.827	82.275	1.00	47.42
2964	CB	CYS	A	368	-96.888	-26.771	82.554	1.00	47.41
2965	SG	CYS	A	368	-95.730	-26.542	81.198	1.00	46.58
2966	C	CYS	A	368	-98.619	-27.556	80.938	1.00	46.20
2967	O	CYS	A	368	-98.368	-28.249	79.948	1.00	45.93
2968	N	THR	A	369	-99.490	-26.559	80.907	1.00	44.12
2969	CA	THR	A	369	-100.088	-26.180	79.642	1.00	42.61
2970	CB	THR	A	369	-101.619	-26.518	79.577	1.00	42.64
2971	OG1	THR	A	369	-102.392	-25.353	79.264	1.00	42.69
2972	CG2	THR	A	369	-102.149	-26.942	80.929	1.00	43.54
2973	C	THR	A	369	-99.712	-24.733	79.317	1.00	41.02
2974	O	THR	A	369	-99.563	-23.908	80.203	1.00	40.88
2975	N	PHE	A	370	-99.482	-24.462	78.045	1.00	39.16
2976	CA	PHE	A	370	-99.060	-23.150	77.607	1.00	37.31
2977	CB	PHE	A	370	-98.248	-23.272	76.310	1.00	37.15
2978	CG	PHE	A	370	-96.838	-23.766	76.511	1.00	34.73
2979	CD1	PHE	A	370	-95.844	-22.905	76.967	1.00	33.48
2980	CE1	PHE	A	370	-94.530	-23.352	77.158	1.00	33.31
2981	CZ	PHE	A	370	-94.208	-24.678	76.875	1.00	32.49
2982	CE2	PHE	A	370	-95.201	-25.543	76.416	1.00	32.47
2983	CD2	PHE	A	370	-96.505	-25.079	76.233	1.00	33.08
2984	C	PHE	A	370	-100.268	-22.270	77.372	1.00	37.01
2985	O	PHE	A	370	-101.214	-22.663	76.673	1.00	36.86
2986	N	ILE	A	371	-100.246	-21.068	77.938	1.00	36.08
2987	CA	ILE	A	371	-101.362	-20.156	77.733	1.00	35.33
2988	CB	ILE	A	371	-101.798	-19.484	79.045	1.00	35.35
2989	CG1	ILE	A	371	-100.774	-18.452	79.500	1.00	35.72
2990	CD1	ILE	A	371	-101.094	-17.846	80.831	1.00	33.45
2991	CG2	ILE	A	371	-101.933	-20.517	80.118	1.00	36.12
2992	C	ILE	A	371	-101.061	-19.154	76.637	1.00	34.47
2993	O	ILE	A	371	-101.967	-18.464	76.156	1.00	34.72
2994	N	THR	A	372	-99.796	-19.073	76.238	1.00	33.71
2995	CA	THR	A	372	-99.413	-18.250	75.081	1.00	33.23
2996	CB	THR	A	372	-98.559	-17.026	75.457	1.00	33.14
2997	OG1	THR	A	372	-97.327	-17.458	76.046	1.00	31.70
2998	CG2	THR	A	372	-99.232	-16.189	76.529	1.00	33.50
2999	C	THR	A	372	-98.647	-19.107	74.084	1.00	33.04

**REPLACEMENT SHEET**  
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**FIGURE 3 BG**

A	B	C	D	E	F	G	H	I	J
3000	O	THR	A	372	-98.098	-20.149	74.442	1.00	32.62
3001	N	LYS	A	373	-98.605	-18.642	72.842	1.00	33.13
3002	CA	LYS	A	373	-97.946	-19.348	71.751	1.00	33.71
3003	CB	LYS	A	373	-98.864	-20.463	71.236	1.00	34.69
3004	CG	LYS	A	373	-98.515	-21.832	71.757	1.00	37.34
3005	CD	LYS	A	373	-97.573	-22.584	70.808	1.00	40.07
3006	CE	LYS	A	373	-97.611	-24.076	71.129	1.00	41.29
3007	NZ	LYS	A	373	-97.392	-24.331	72.596	1.00	39.51
3008	C	LYS	A	373	-97.695	-18.387	70.611	1.00	32.96
3009	O	LYS	A	373	-98.313	-17.327	70.532	1.00	33.22
3010	N	GLY	A	374	-96.811	-18.761	69.705	1.00	32.47
3011	CA	GLY	A	374	-96.525	-17.923	68.550	1.00	31.99
3012	C	GLY	A	374	-95.031	-17.795	68.293	1.00	31.37
3013	O	GLY	A	374	-94.226	-18.208	69.110	1.00	31.20
3014	N	THR	A	375	-94.658	-17.233	67.154	1.00	30.90
3015	CA	THR	A	375	-93.246	-17.004	66.875	1.00	30.93
3016	CB	THR	A	375	-92.924	-17.143	65.362	1.00	30.63
3017	OG1	THR	A	375	-93.906	-16.440	64.590	1.00	31.31
3018	CG2	THR	A	375	-93.075	-18.619	64.906	1.00	30.29
3019	C	THR	A	375	-92.865	-15.625	67.393	1.00	30.34
3020	O	THR	A	375	-92.659	-14.707	66.623	1.00	30.61
3021	N	TRP	A	376	-92.856	-15.498	68.715	1.00	29.89
3022	CA	TRP	A	376	-92.439	-14.299	69.434	1.00	29.59
3023	CB	TRP	A	376	-93.478	-13.173	69.372	1.00	29.71
3024	CG	TRP	A	376	-94.880	-13.619	69.599	1.00	30.29
3025	CD1	TRP	A	376	-95.776	-14.017	68.647	1.00	29.32
3026	NE1	TRP	A	376	-96.965	-14.362	69.241	1.00	28.96
3027	CE2	TRP	A	376	-96.862	-14.203	70.594	1.00	27.80
3028	CD2	TRP	A	376	-95.561	-13.728	70.860	1.00	29.24
3029	CE3	TRP	A	376	-95.201	-13.473	72.190	1.00	28.12
3030	CZ3	TRP	A	376	-96.126	-13.695	73.186	1.00	27.35
3031	CH2	TRP	A	376	-97.421	-14.160	72.884	1.00	28.74
3032	CZ2	TRP	A	376	-97.804	-14.412	71.595	1.00	29.31
3033	C	TRP	A	376	-92.210	-14.786	70.859	1.00	29.40
3034	O	TRP	A	376	-92.395	-15.971	71.140	1.00	28.98
3035	N	GLU	A	377	-91.770	-13.912	71.755	1.00	29.21
3036	CA	GLU	A	377	-91.496	-14.386	73.113	1.00	29.11
3037	CB	GLU	A	377	-89.988	-14.611	73.336	1.00	28.79
3038	CG	GLU	A	377	-89.448	-15.849	72.627	1.00	28.35
3039	CD	GLU	A	377	-88.088	-16.324	73.120	1.00	29.91
3040	OE1	GLU	A	377	-87.752	-17.495	72.827	1.00	29.47
3041	OE2	GLU	A	377	-87.343	-15.542	73.778	1.00	28.67
3042	C	GLU	A	377	-92.099	-13.561	74.240	1.00	28.79
3043	O	GLU	A	377	-92.302	-12.354	74.116	1.00	29.25
3044	N	VAL	A	378	-92.412	-14.237	75.332	1.00	28.38
3045	CA	VAL	A	378	-92.837	-13.569	76.541	1.00	27.65
3046	CB	VAL	A	378	-93.646	-14.519	77.439	1.00	27.88
3047	CG1	VAL	A	378	-93.804	-13.925	78.830	1.00	26.50
3048	CG2	VAL	A	378	-95.027	-14.836	76.800	1.00	26.31
3049	C	VAL	A	378	-91.562	-13.147	77.275	1.00	27.70
3050	O	VAL	A	378	-90.718	-13.976	77.593	1.00	27.32

**REPLACEMENT SHEET**  
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**FIGURE 3 BH**

A	B	C	D	E	F	G	H	I	J
3051	N	ILE	A	379	-91.406	-11.854	77.523	1.00	27.85
3052	CA	ILE	A	379	-90.224	-11.362	78.202	1.00	27.66
3053	CB	ILE	A	379	-90.085	-9.875	77.966	1.00	27.68
3054	CG1	ILE	A	379	-90.094	-9.569	76.475	1.00	27.06
3055	CD1	ILE	A	379	-88.982	-10.254	75.698	1.00	27.23
3056	CG2	ILE	A	379	-88.821	-9.343	78.633	1.00	27.37
3057	C	ILE	A	379	-90.352	-11.628	79.691	1.00	28.64
3058	O	ILE	A	379	-89.436	-12.159	80.328	1.00	28.55
3059	N	GLY	A	380	-91.491	-11.252	80.259	1.00	29.04
3060	CA	GLY	A	380	-91.688	-11.466	81.676	1.00	30.14
3061	C	GLY	A	380	-93.133	-11.491	82.135	1.00	31.28
3062	O	GLY	A	380	-94.006	-10.891	81.518	1.00	31.31
3063	N	ILE	A	381	-93.390	-12.246	83.199	1.00	32.45
3064	CA	ILE	A	381	-94.683	-12.201	83.851	1.00	33.24
3065	CB	ILE	A	381	-94.985	-13.501	84.587	1.00	33.27
3066	CG1	ILE	A	381	-95.241	-14.628	83.585	1.00	33.10
3067	CD1	ILE	A	381	-95.019	-16.022	84.135	1.00	31.40
3068	CG2	ILE	A	381	-96.196	-13.313	85.485	1.00	32.88
3069	C	ILE	A	381	-94.551	-11.063	84.847	1.00	33.97
3070	O	ILE	A	381	-93.729	-11.109	85.766	1.00	33.63
3071	N	GLU	A	382	-95.374	-10.046	84.658	1.00	34.75
3072	CA	GLU	A	382	-95.340	-8.857	85.480	1.00	35.69
3073	CB	GLU	A	382	-95.641	-7.656	84.590	1.00	35.50
3074	CG	GLU	A	382	-94.684	-7.593	83.411	1.00	35.79
3075	CD	GLU	A	382	-93.226	-7.560	83.859	1.00	37.37
3076	OE1	GLU	A	382	-92.872	-6.704	84.701	1.00	36.22
3077	OE2	GLU	A	382	-92.431	-8.411	83.392	1.00	38.76
3078	C	GLU	A	382	-96.282	-8.924	86.694	1.00	36.12
3079	O	GLU	A	382	-96.006	-8.354	87.758	1.00	35.75
3080	N	ALA	A	383	-97.392	-9.631	86.550	1.00	36.81
3081	CA	ALA	A	383	-98.295	-9.773	87.689	1.00	36.98
3082	CB	ALA	A	383	-98.881	-8.420	88.082	1.00	36.65
3083	C	ALA	A	383	-99.405	-10.749	87.404	1.00	37.31
3084	O	ALA	A	383	-99.725	-11.042	86.253	1.00	37.00
3085	N	LEU	A	384	-99.989	-11.267	88.469	1.00	38.15
3086	CA	LEU	A	384	-101.144	-12.118	88.310	1.00	39.28
3087	CB	LEU	A	384	-100.753	-13.589	88.239	1.00	39.69
3088	CG	LEU	A	384	-100.874	-14.284	89.581	1.00	39.71
3089	CD1	LEU	A	384	-100.766	-15.788	89.460	1.00	37.20
3090	CD2	LEU	A	384	-99.805	-13.713	90.476	1.00	42.83
3091	C	LEU	A	384	-102.148	-11.884	89.434	1.00	39.71
3092	O	LEU	A	384	-101.793	-11.740	90.608	1.00	39.17
3093	N	THR	A	385	-103.409	-11.817	89.048	1.00	40.18
3094	CA	THR	A	385	-104.482	-11.699	90.010	1.00	40.86
3095	CB	THR	A	385	-105.344	-10.502	89.674	1.00	40.38
3096	OG1	THR	A	385	-105.753	-10.581	88.300	1.00	39.61
3097	CG2	THR	A	385	-104.496	-9.244	89.719	1.00	39.99
3098	C	THR	A	385	-105.275	-12.995	89.891	1.00	41.83
3099	O	THR	A	385	-104.813	-13.945	89.263	1.00	41.94
3100	N	SER	A	386	-106.461	-13.041	90.486	1.00	42.59
3101	CA	SER	A	386	-107.291	-14.228	90.383	1.00	43.17

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**FIGURE 3 BI**

A	B	C	D	E	F	G	H	I	J
3102	CB	SER	A	386	-108.434	-14.179	91.393	1.00	43.36
3103	OG	SER	A	386	-109.495	-13.395	90.883	1.00	44.75
3104	C	SER	A	386	-107.885	-14.310	88.985	1.00	43.23
3105	O	SER	A	386	-108.147	-15.401	88.492	1.00	43.30
3106	N	ASP	A	387	-108.074	-13.151	88.352	1.00	43.17
3107	CA	ASP	A	387	-108.713	-13.063	87.040	1.00	43.23
3108	CB	ASP	A	387	-109.678	-11.866	87.012	1.00	43.76
3109	CG	ASP	A	387	-110.811	-11.981	88.036	1.00	46.84
3110	OD1	ASP	A	387	-111.477	-13.043	88.092	1.00	47.87
3111	OD2	ASP	A	387	-111.118	-11.046	88.825	1.00	49.98
3112	C	ASP	A	387	-107.768	-12.929	85.834	1.00	42.74
3113	O	ASP	A	387	-108.107	-13.366	84.733	1.00	42.73
3114	N	TYR	A	388	-106.610	-12.294	86.028	1.00	42.04
3115	CA	TYR	A	388	-105.704	-11.982	84.922	1.00	41.04
3116	CB	TYR	A	388	-105.918	-10.546	84.456	1.00	41.59
3117	CG	TYR	A	388	-107.268	-10.254	83.845	1.00	43.68
3118	CD1	TYR	A	388	-108.245	-9.574	84.566	1.00	44.79
3119	CE1	TYR	A	388	-109.486	-9.291	84.002	1.00	46.09
3120	CZ	TYR	A	388	-109.756	-9.689	82.705	1.00	46.54
3121	OH	TYR	A	388	-110.995	-9.415	82.144	1.00	47.67
3122	CE2	TYR	A	388	-108.797	-10.364	81.973	1.00	45.96
3123	CD2	TYR	A	388	-107.565	-10.639	82.537	1.00	44.99
3124	C	TYR	A	388	-104.206	-12.142	85.201	1.00	40.05
3125	O	TYR	A	388	-103.714	-11.973	86.322	1.00	39.45
3126	N	LEU	A	389	-103.492	-12.444	84.128	1.00	38.96
3127	CA	LEU	A	389	-102.057	-12.602	84.141	1.00	37.49
3128	CB	LEU	A	389	-101.694	-13.963	83.556	1.00	37.55
3129	CG	LEU	A	389	-100.251	-14.396	83.193	1.00	37.72
3130	CD1	LEU	A	389	-99.461	-13.286	82.493	1.00	35.09
3131	CD2	LEU	A	389	-99.501	-14.931	84.384	1.00	34.39
3132	C	LEU	A	389	-101.581	-11.482	83.248	1.00	36.68
3133	O	LEU	A	389	-102.035	-11.362	82.100	1.00	36.51
3134	N	TYR	A	390	-100.734	-10.610	83.790	1.00	35.56
3135	CA	TYR	A	390	-100.152	-9.537	82.990	1.00	34.84
3136	CB	TYR	A	390	-100.160	-8.216	83.753	1.00	34.98
3137	CG	TYR	A	390	-101.548	-7.768	84.149	1.00	36.76
3138	CD1	TYR	A	390	-102.314	-6.971	83.307	1.00	37.18
3139	CE1	TYR	A	390	-103.579	-6.561	83.671	1.00	37.10
3140	CZ	TYR	A	390	-104.107	-6.960	84.885	1.00	37.72
3141	OH	TYR	A	390	-105.374	-6.569	85.265	1.00	38.83
3142	CE2	TYR	A	390	-103.376	-7.760	85.729	1.00	38.02
3143	CD2	TYR	A	390	-102.099	-8.157	85.359	1.00	37.31
3144	C	TYR	A	390	-98.725	-9.921	82.584	1.00	33.82
3145	O	TYR	A	390	-97.974	-10.467	83.375	1.00	32.84
3146	N	TYR	A	391	-98.363	-9.653	81.338	1.00	33.20
3147	CA	TYR	A	391	-97.034	-10.012	80.877	1.00	32.69
3148	CB	TYR	A	391	-96.995	-11.454	80.357	1.00	32.36
3149	CG	TYR	A	391	-97.691	-11.673	79.027	1.00	32.00
3150	CD1	TYR	A	391	-97.027	-11.474	77.833	1.00	31.00
3151	CE1	TYR	A	391	-97.656	-11.683	76.617	1.00	32.29
3152	CZ	TYR	A	391	-98.972	-12.095	76.588	1.00	32.79

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**FIGURE 3 BJ**

A	B	C	D	E	F	G	H	I	J
3153	OH	TYR	A	391	-99.612	-12.306	75.378	1.00	33.27
3154	CE2	TYR	A	391	-99.654	-12.295	77.765	1.00	33.23
3155	CD2	TYR	A	391	-99.013	-12.094	78.976	1.00	32.20
3156	C	TYR	A	391	-96.563	-9.085	79.792	1.00	32.29
3157	O	TYR	A	391	-97.361	-8.453	79.099	1.00	32.50
3158	N	ILE	A	392	-95.251	-9.014	79.639	1.00	31.52
3159	CA	ILE	A	392	-94.684	-8.212	78.578	1.00	31.31
3160	CB	ILE	A	392	-93.557	-7.329	79.140	1.00	31.30
3161	CG1	ILE	A	392	-94.180	-6.177	79.933	1.00	31.92
3162	CD1	ILE	A	392	-93.211	-5.162	80.474	1.00	34.62
3163	CG2	ILE	A	392	-92.688	-6.823	78.006	1.00	31.62
3164	C	ILE	A	392	-94.162	-9.167	77.520	1.00	30.76
3165	O	ILE	A	392	-93.658	-10.223	77.860	1.00	31.24
3166	N	SER	A	393	-94.294	-8.812	76.247	1.00	30.16
3167	CA	SER	A	393	-93.789	-9.659	75.182	1.00	29.75
3168	CB	SER	A	393	-94.861	-10.658	74.764	1.00	29.92
3169	OG	SER	A	393	-95.630	-10.120	73.709	1.00	29.63
3170	C	SER	A	393	-93.417	-8.846	73.959	1.00	29.79
3171	O	SER	A	393	-93.829	-7.676	73.826	1.00	29.67
3172	N	ASN	A	394	-92.661	-9.456	73.048	1.00	29.19
3173	CA	ASN	A	394	-92.342	-8.766	71.805	1.00	29.62
3174	CB	ASN	A	394	-90.876	-8.940	71.409	1.00	28.91
3175	CG	ASN	A	394	-90.438	-10.380	71.413	1.00	28.75
3176	OD1	ASN	A	394	-91.266	-11.293	71.323	1.00	29.80
3177	ND2	ASN	A	394	-89.132	-10.601	71.531	1.00	23.61
3178	C	ASN	A	394	-93.246	-9.200	70.654	1.00	30.28
3179	O	ASN	A	394	-92.810	-9.244	69.510	1.00	30.27
3180	N	GLU	A	395	-94.501	-9.513	70.959	1.00	31.07
3181	CA	GLU	A	395	-95.413	-10.010	69.929	1.00	32.27
3182	CB	GLU	A	395	-96.656	-10.646	70.552	1.00	32.41
3183	CG	GLU	A	395	-97.665	-11.121	69.513	1.00	33.91
3184	CD	GLU	A	395	-98.992	-11.565	70.112	1.00	36.35
3185	OE1	GLU	A	395	-99.798	-12.148	69.363	1.00	38.35
3186	OE2	GLU	A	395	-99.242	-11.336	71.320	1.00	35.05
3187	C	GLU	A	395	-95.831	-8.960	68.911	1.00	32.44
3188	O	GLU	A	395	-95.924	-9.246	67.725	1.00	32.39
3189	N	TYR	A	396	-96.046	-7.737	69.372	1.00	32.94
3190	CA	TYR	A	396	-96.538	-6.696	68.492	1.00	34.02
3191	CB	TYR	A	396	-96.678	-5.376	69.238	1.00	34.28
3192	CG	TYR	A	396	-97.530	-4.373	68.514	1.00	35.62
3193	CD1	TYR	A	396	-97.009	-3.156	68.129	1.00	37.19
3194	CE1	TYR	A	396	-97.781	-2.228	67.475	1.00	38.08
3195	CZ	TYR	A	396	-99.097	-2.522	67.206	1.00	39.93
3196	OH	TYR	A	396	-99.869	-1.596	66.549	1.00	43.01
3197	CE2	TYR	A	396	-99.641	-3.733	67.573	1.00	36.99
3198	CD2	TYR	A	396	-98.864	-4.643	68.220	1.00	36.76
3199	C	TYR	A	396	-95.757	-6.485	67.198	1.00	34.70
3200	O	TYR	A	396	-94.589	-6.043	67.195	1.00	34.91
3201	N	LYS	A	397	-96.446	-6.799	66.107	1.00	34.92
3202	CA	LYS	A	397	-95.975	-6.620	64.732	1.00	35.51
3203	CB	LYS	A	397	-95.805	-5.142	64.382	1.00	36.04

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FIGURE 3 BK

A	B	C	D	E	F	G	H	I	J
3204	CG	LYS	A	397	-97.085	-4.336	64.631	1.00	37.94
3205	CD	LYS	A	397	-97.278	-3.189	63.634	1.00	43.63
3206	CE	LYS	A	397	-98.408	-3.463	62.632	1.00	46.07
3207	NZ	LYS	A	397	-99.674	-2.736	62.990	1.00	48.66
3208	C	LYS	A	397	-94.769	-7.479	64.362	1.00	34.76
3209	O	LYS	A	397	-94.146	-7.318	63.314	1.00	35.69
3210	N	GLY	A	398	-94.473	-8.432	65.225	1.00	34.51
3211	CA	GLY	A	398	-93.408	-9.378	64.952	1.00	33.09
3212	C	GLY	A	398	-92.027	-8.789	65.139	1.00	31.76
3213	O	GLY	A	398	-91.041	-9.317	64.619	1.00	31.50
3214	N	MET	A	399	-91.968	-7.714	65.918	1.00	30.92
3215	CA	MET	A	399	-90.729	-6.974	66.156	1.00	29.83
3216	CB	MET	A	399	-91.029	-5.475	66.137	1.00	29.98
3217	CG	MET	A	399	-91.629	-5.021	64.837	1.00	29.96
3218	SD	MET	A	399	-92.254	-3.368	64.887	1.00	37.21
3219	CE	MET	A	399	-90.784	-2.469	65.436	1.00	33.01
3220	C	MET	A	399	-90.118	-7.371	67.487	1.00	29.01
3221	O	MET	A	399	-90.572	-6.920	68.538	1.00	28.71
3222	N	PRO	A	400	-89.068	-8.190	67.428	1.00	28.26
3223	CA	PRO	A	400	-88.406	-8.745	68.618	1.00	27.62
3224	CB	PRO	A	400	-87.199	-9.488	68.025	1.00	27.70
3225	CG	PRO	A	400	-87.581	-9.798	66.640	1.00	28.07
3226	CD	PRO	A	400	-88.414	-8.614	66.180	1.00	27.97
3227	C	PRO	A	400	-87.878	-7.677	69.570	1.00	27.75
3228	O	PRO	A	400	-87.707	-7.936	70.780	1.00	27.06
3229	N	GLY	A	401	-87.595	-6.504	69.004	1.00	27.25
3230	CA	GLY	A	401	-86.997	-5.409	69.729	1.00	27.34
3231	C	GLY	A	401	-88.063	-4.491	70.262	1.00	27.51
3232	O	GLY	A	401	-87.769	-3.419	70.752	1.00	28.06
3233	N	GLY	A	402	-89.313	-4.911	70.147	1.00	27.24
3234	CA	GLY	A	402	-90.410	-4.153	70.696	1.00	27.47
3235	C	GLY	A	402	-90.847	-4.818	71.989	1.00	28.19
3236	O	GLY	A	402	-90.546	-5.983	72.236	1.00	28.06
3237	N	ARG	A	403	-91.577	-4.088	72.815	1.00	28.82
3238	CA	ARG	A	403	-91.957	-4.588	74.117	1.00	29.49
3239	CB	ARG	A	403	-90.939	-4.061	75.132	1.00	30.06
3240	CG	ARG	A	403	-90.202	-5.072	75.981	1.00	30.95
3241	CD	ARG	A	403	-89.633	-6.206	75.194	1.00	33.17
3242	NE	ARG	A	403	-88.254	-6.580	75.530	1.00	33.21
3243	CZ	ARG	A	403	-87.362	-6.896	74.597	1.00	33.74
3244	NH1	ARG	A	403	-86.130	-7.249	74.929	1.00	35.28
3245	NH2	ARG	A	403	-87.713	-6.859	73.313	1.00	32.54
3246	C	ARG	A	403	-93.338	-3.999	74.426	1.00	29.90
3247	O	ARG	A	403	-93.527	-2.791	74.312	1.00	29.67
3248	N	ASN	A	404	-94.300	-4.841	74.795	1.00	30.17
3249	CA	ASN	A	404	-95.632	-4.357	75.172	1.00	31.02
3250	CB	ASN	A	404	-96.585	-4.346	73.976	1.00	30.84
3251	CG	ASN	A	404	-96.411	-3.123	73.107	1.00	31.54
3252	OD1	ASN	A	404	-95.945	-3.227	71.993	1.00	34.51
3253	ND2	ASN	A	404	-96.790	-1.962	73.613	1.00	31.54
3254	C	ASN	A	404	-96.296	-5.116	76.309	1.00	30.96

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**FIGURE 3 BL**

A	B	C	D	E	F	G	H	I	J
3255	O	ASN	A	404	-96.097	-6.309	76.468	1.00	31.51
3256	N	LEU	A	405	-97.108	-4.416	77.087	1.00	31.43
3257	CA	LEU	A	405	-97.824	-5.044	78.183	1.00	31.86
3258	CB	LEU	A	405	-98.169	-4.011	79.262	1.00	31.55
3259	CG	LEU	A	405	-99.055	-4.538	80.406	1.00	32.11
3260	CD1	LEU	A	405	-98.305	-5.562	81.269	1.00	29.98
3261	CD2	LEU	A	405	-99.584	-3.421	81.287	1.00	31.87
3262	C	LEU	A	405	-99.100	-5.711	77.681	1.00	32.43
3263	O	LEU	A	405	-99.890	-5.096	76.980	1.00	31.29
3264	N	TYR	A	406	-99.285	-6.978	78.040	1.00	33.78
3265	CA	TYR	A	406	-100.503	-7.697	77.696	1.00	35.09
3266	CB	TYR	A	406	-100.249	-8.855	76.738	1.00	34.76
3267	CG	TYR	A	406	-99.685	-8.475	75.396	1.00	34.78
3268	CD1	TYR	A	406	-100.491	-8.453	74.257	1.00	33.10
3269	CE1	TYR	A	406	-99.964	-8.119	73.025	1.00	33.82
3270	CZ	TYR	A	406	-98.611	-7.819	72.920	1.00	32.85
3271	OH	TYR	A	406	-98.060	-7.478	71.705	1.00	31.33
3272	CE2	TYR	A	406	-97.805	-7.845	74.033	1.00	32.74
3273	CD2	TYR	A	406	-98.337	-8.171	75.256	1.00	33.14
3274	C	TYR	A	406	-101.157	-8.253	78.949	1.00	36.09
3275	O	TYR	A	406	-100.559	-8.302	80.014	1.00	35.94
3276	N	LYS	A	407	-102.399	-8.689	78.793	1.00	37.79
3277	CA	LYS	A	407	-103.172	-9.246	79.887	1.00	39.76
3278	CB	LYS	A	407	-104.129	-8.175	80.361	1.00	39.96
3279	CG	LYS	A	407	-105.278	-8.580	81.224	1.00	41.71
3280	CD	LYS	A	407	-106.415	-7.629	80.904	1.00	43.83
3281	CE	LYS	A	407	-106.940	-6.878	82.132	1.00	47.46
3282	NZ	LYS	A	407	-108.000	-5.875	81.719	1.00	46.10
3283	C	LYS	A	407	-103.909	-10.473	79.347	1.00	40.89
3284	O	LYS	A	407	-104.532	-10.429	78.301	1.00	40.99
3285	N	ILE	A	408	-103.812	-11.592	80.033	1.00	42.46
3286	CA	ILE	A	408	-104.484	-12.776	79.520	1.00	43.24
3287	CB	ILE	A	408	-103.429	-13.860	79.167	1.00	43.09
3288	CG1	ILE	A	408	-104.089	-15.189	78.834	1.00	43.14
3289	CD1	ILE	A	408	-103.228	-16.078	77.948	1.00	43.96
3290	CG2	ILE	A	408	-102.441	-14.017	80.289	1.00	42.69
3291	C	ILE	A	408	-105.575	-13.266	80.478	1.00	43.91
3292	O	ILE	A	408	-105.319	-13.510	81.657	1.00	43.59
3293	N	GLN	A	409	-106.804	-13.364	79.964	1.00	45.17
3294	CA	GLN	A	409	-107.937	-13.837	80.757	1.00	46.28
3295	CB	GLN	A	409	-109.236	-13.845	79.943	1.00	46.51
3296	CG	GLN	A	409	-110.039	-12.546	79.986	1.00	48.80
3297	CD	GLN	A	409	-111.528	-12.792	80.225	1.00	51.08
3298	OE1	GLN	A	409	-112.384	-12.134	79.628	1.00	52.08
3299	NE2	GLN	A	409	-111.834	-13.732	81.107	1.00	51.58
3300	C	GLN	A	409	-107.677	-15.231	81.262	1.00	46.28
3301	O	GLN	A	409	-107.680	-16.175	80.488	1.00	46.64
3302	N	LEU	A	410	-107.459	-15.362	82.562	1.00	46.95
3303	CA	LEU	A	410	-107.187	-16.665	83.160	1.00	47.82
3304	CB	LEU	A	410	-106.892	-16.519	84.655	1.00	47.64
3305	CG	LEU	A	410	-105.435	-16.451	85.140	1.00	48.05

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**FIGURE 3 BM**

A	B	C	D	E	F	G	H	I	J
3306	CD1	LEU	A	410	-104.508	-15.825	84.122	1.00	47.02
3307	CD2	LEU	A	410	-105.342	-15.730	86.480	1.00	47.28
3308	C	LEU	A	410	-108.332	-17.657	82.940	1.00	48.62
3309	O	LEU	A	410	-108.114	-18.871	82.926	1.00	49.20
3310	N	SER	A	411	-109.551	-17.151	82.763	1.00	49.21
3311	CA	SER	A	411	-110.697	-18.041	82.564	1.00	49.64
3312	CB	SER	A	411	-111.998	-17.443	83.113	1.00	49.66
3313	OG	SER	A	411	-112.334	-16.236	82.459	1.00	50.12
3314	C	SER	A	411	-110.852	-18.424	81.109	1.00	49.64
3315	O	SER	A	411	-111.721	-19.220	80.760	1.00	49.77
3316	N	ASP	A	412	-110.004	-17.846	80.264	1.00	49.70
3317	CA	ASP	A	412	-109.974	-18.183	78.844	1.00	49.32
3318	CB	ASP	A	412	-111.249	-17.754	78.129	1.00	49.31
3319	CG	ASP	A	412	-111.118	-17.858	76.631	1.00	49.86
3320	OD1	ASP	A	412	-111.620	-16.960	75.925	1.00	51.20
3321	OD2	ASP	A	412	-110.505	-18.795	76.069	1.00	49.93
3322	C	ASP	A	412	-108.754	-17.587	78.150	1.00	48.90
3323	O	ASP	A	412	-108.737	-16.405	77.808	1.00	48.74
3324	N	TYR	A	413	-107.762	-18.441	77.909	1.00	48.67
3325	CA	TYR	A	413	-106.470	-18.056	77.340	1.00	48.21
3326	CB	TYR	A	413	-105.569	-19.284	77.219	1.00	48.00
3327	CG	TYR	A	413	-105.346	-19.964	78.544	1.00	47.05
3328	CD1	TYR	A	413	-105.400	-19.244	79.728	1.00	45.48
3329	CE1	TYR	A	413	-105.205	-19.862	80.952	1.00	45.07
3330	CZ	TYR	A	413	-104.948	-21.218	81.004	1.00	45.31
3331	OH	TYR	A	413	-104.737	-21.830	82.228	1.00	45.70
3332	CE2	TYR	A	413	-104.885	-21.957	79.841	1.00	45.59
3333	CD2	TYR	A	413	-105.087	-21.329	78.616	1.00	46.71
3334	C	TYR	A	413	-106.501	-17.311	76.013	1.00	48.20
3335	O	TYR	A	413	-105.594	-16.536	75.726	1.00	48.44
3336	N	THR	A	414	-107.520	-17.541	75.197	1.00	47.87
3337	CA	THR	A	414	-107.567	-16.877	73.905	1.00	48.02
3338	CB	THR	A	414	-108.516	-17.616	72.932	1.00	48.47
3339	OG1	THR	A	414	-108.533	-19.021	73.228	1.00	48.81
3340	CG2	THR	A	414	-107.962	-17.563	71.507	1.00	49.08
3341	C	THR	A	414	-107.979	-15.408	74.061	1.00	47.92
3342	O	THR	A	414	-107.921	-14.624	73.104	1.00	47.40
3343	N	LYS	A	415	-108.408	-15.049	75.269	1.00	47.86
3344	CA	LYS	A	415	-108.818	-13.681	75.566	1.00	48.09
3345	CB	LYS	A	415	-109.919	-13.668	76.634	1.00	48.35
3346	CG	LYS	A	415	-111.348	-13.882	76.099	1.00	49.40
3347	CD	LYS	A	415	-112.327	-14.273	77.230	1.00	50.67
3348	CE	LYS	A	415	-113.733	-14.598	76.681	1.00	52.10
3349	NZ	LYS	A	415	-114.681	-15.192	77.678	1.00	50.50
3350	C	LYS	A	415	-107.602	-12.851	76.010	1.00	47.68
3351	O	LYS	A	415	-107.281	-12.758	77.211	1.00	47.60
3352	N	VAL	A	416	-106.923	-12.256	75.034	1.00	46.94
3353	CA	VAL	A	416	-105.718	-11.476	75.315	1.00	46.15
3354	CB	VAL	A	416	-104.464	-12.136	74.718	1.00	46.12
3355	CG1	VAL	A	416	-103.219	-11.347	75.096	1.00	46.22
3356	CG2	VAL	A	416	-104.341	-13.572	75.187	1.00	46.14



**REPLACEMENT SHEET**  
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**FIGURE 3 BN**

A	B	C	D	E	F	G	H	I	J
3357	C	VAL	A	416	-105.818	-10.045	74.804	1.00	45.58
3358	O	VAL	A	416	-106.069	-9.810	73.624	1.00	45.12
3359	N	THR	A	417	-105.614	-9.094	75.708	1.00	44.95
3360	CA	THR	A	417	-105.657	-7.682	75.359	1.00	44.73
3361	CB	THR	A	417	-106.527	-6.897	76.374	1.00	44.76
3362	OG1	THR	A	417	-107.715	-7.631	76.693	1.00	46.65
3363	CG2	THR	A	417	-107.050	-5.622	75.752	1.00	45.28
3364	C	THR	A	417	-104.260	-7.097	75.426	1.00	44.13
3365	O	THR	A	417	-103.505	-7.382	76.362	1.00	44.42
3366	N	CYS	A	418	-103.899	-6.289	74.443	1.00	43.39
3367	CA	CYS	A	418	-102.660	-5.559	74.555	1.00	42.51
3368	CB	CYS	A	418	-102.050	-5.243	73.204	1.00	42.80
3369	SG	CYS	A	418	-100.345	-4.653	73.414	1.00	43.32
3370	C	CYS	A	418	-103.005	-4.275	75.271	1.00	42.18
3371	O	CYS	A	418	-103.848	-3.510	74.805	1.00	42.52
3372	N	LEU	A	419	-102.356	-4.030	76.399	1.00	41.41
3373	CA	LEU	A	419	-102.669	-2.859	77.201	1.00	41.03
3374	CB	LEU	A	419	-102.468	-3.161	78.699	1.00	40.49
3375	CG	LEU	A	419	-103.396	-4.295	79.176	1.00	41.05
3376	CD1	LEU	A	419	-103.204	-4.655	80.641	1.00	38.62
3377	CD2	LEU	A	419	-104.864	-3.955	78.871	1.00	41.03
3378	C	LEU	A	419	-101.870	-1.626	76.816	1.00	40.78
3379	O	LEU	A	419	-102.157	-0.536	77.303	1.00	40.62
3380	N	SER	A	420	-100.884	-1.788	75.933	1.00	40.62
3381	CA	SER	A	420	-100.010	-0.669	75.585	1.00	40.10
3382	CB	SER	A	420	-98.646	-0.815	76.277	1.00	39.89
3383	OG	SER	A	420	-97.918	-1.939	75.806	1.00	37.82
3384	C	SER	A	420	-99.796	-0.432	74.105	1.00	40.54
3385	O	SER	A	420	-99.518	0.685	73.700	1.00	40.69
3386	N	CYS	A	421	-99.901	-1.479	73.302	1.00	41.40
3387	CA	CYS	A	421	-99.666	-1.371	71.862	1.00	42.61
3388	CB	CYS	A	421	-100.293	-2.554	71.128	1.00	42.55
3389	SG	CYS	A	421	-99.620	-4.145	71.597	1.00	43.99
3390	C	CYS	A	421	-100.183	-0.113	71.191	1.00	43.15
3391	O	CYS	A	421	-99.529	0.427	70.305	1.00	43.48
3392	N	GLU	A	422	-101.353	0.359	71.597	1.00	43.98
3393	CA	GLU	A	422	-101.996	1.426	70.843	1.00	44.84
3394	CB	GLU	A	422	-103.429	1.022	70.508	1.00	45.47
3395	CG	GLU	A	422	-103.726	1.045	69.036	1.00	48.80
3396	CD	GLU	A	422	-103.109	-0.147	68.344	1.00	52.97
3397	OE1	GLU	A	422	-103.637	-1.271	68.535	1.00	54.91
3398	OE2	GLU	A	422	-102.100	0.039	67.627	1.00	53.96
3399	C	GLU	A	422	-102.050	2.752	71.539	1.00	44.63
3400	O	GLU	A	422	-102.714	3.669	71.062	1.00	44.84
3401	N	LEU	A	423	-101.379	2.863	72.673	1.00	44.63
3402	CA	LEU	A	423	-101.424	4.104	73.422	1.00	44.36
3403	CB	LEU	A	423	-100.722	3.945	74.756	1.00	43.74
3404	CG	LEU	A	423	-101.432	2.861	75.547	1.00	43.47
3405	CD1	LEU	A	423	-100.700	2.545	76.833	1.00	42.34
3406	CD2	LEU	A	423	-102.885	3.275	75.831	1.00	45.13
3407	C	LEU	A	423	-100.839	5.240	72.609	1.00	44.45

**REPLACEMENT SHEET**  
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**FIGURE 3 BO**

A	B	C	D	E	F	G	H	I	J
3408	O	LEU	A	423	-101.376	6.355	72.594	1.00	44.82
3409	N	ASN	A	424	-99.760	4.937	71.903	1.00	44.24
3410	CA	ASN	A	424	-99.068	5.917	71.077	1.00	44.12
3411	CB	ASN	A	424	-98.281	6.898	71.945	1.00	43.83
3412	CG	ASN	A	424	-98.116	8.260	71.288	1.00	45.15
3413	OD1	ASN	A	424	-97.775	8.360	70.105	1.00	45.08
3414	ND2	ASN	A	424	-98.376	9.320	72.052	1.00	45.29
3415	C	ASN	A	424	-98.120	5.150	70.179	1.00	43.86
3416	O	ASN	A	424	-96.910	5.190	70.369	1.00	44.50
3417	N	PRO	A	425	-98.689	4.421	69.229	1.00	43.43
3418	CA	PRO	A	425	-97.934	3.584	68.293	1.00	43.33
3419	CB	PRO	A	425	-98.988	3.222	67.240	1.00	43.27
3420	CG	PRO	A	425	-100.102	4.181	67.509	1.00	43.80
3421	CD	PRO	A	425	-100.139	4.298	69.002	1.00	43.48
3422	C	PRO	A	425	-96.724	4.217	67.616	1.00	42.94
3423	O	PRO	A	425	-95.832	3.474	67.223	1.00	42.64
3424	N	GLU	A	426	-96.679	5.532	67.465	1.00	42.90
3425	CA	GLU	A	426	-95.533	6.133	66.790	1.00	43.44
3426	CB	GLU	A	426	-95.929	7.421	66.051	1.00	44.34
3427	CG	GLU	A	426	-94.800	8.077	65.250	1.00	47.87
3428	CD	GLU	A	426	-95.015	9.579	65.003	1.00	52.11
3429	OE1	GLU	A	426	-95.896	9.949	64.193	1.00	54.48
3430	OE2	GLU	A	426	-94.297	10.411	65.610	1.00	53.42
3431	C	GLU	A	426	-94.406	6.425	67.767	1.00	42.60
3432	O	GLU	A	426	-93.236	6.290	67.432	1.00	42.84
3433	N	ARG	A	427	-94.776	6.806	68.981	1.00	41.37
3434	CA	ARG	A	427	-93.828	7.233	69.983	1.00	40.61
3435	CB	ARG	A	427	-94.457	8.364	70.802	1.00	40.83
3436	CG	ARG	A	427	-94.040	8.397	72.257	1.00	40.73
3437	CD	ARG	A	427	-93.165	9.568	72.653	1.00	41.61
3438	NE	ARG	A	427	-93.956	10.762	72.930	1.00	42.68
3439	CZ	ARG	A	427	-93.810	11.543	73.997	1.00	41.39
3440	NH1	ARG	A	427	-94.599	12.605	74.148	1.00	39.72
3441	NH2	ARG	A	427	-92.885	11.276	74.907	1.00	40.19
3442	C	ARG	A	427	-93.404	6.120	70.925	1.00	39.89
3443	O	ARG	A	427	-92.274	6.089	71.397	1.00	39.68
3444	N	CYS	A	428	-94.319	5.199	71.185	1.00	39.15
3445	CA	CYS	A	428	-94.094	4.180	72.189	1.00	38.16
3446	CB	CYS	A	428	-95.041	4.454	73.350	1.00	38.11
3447	SG	CYS	A	428	-94.567	5.971	74.198	1.00	39.02
3448	C	CYS	A	428	-94.228	2.757	71.677	1.00	37.54
3449	O	CYS	A	428	-95.310	2.326	71.275	1.00	37.47
3450	N	GLN	A	429	-93.112	2.026	71.701	1.00	36.94
3451	CA	GLN	A	429	-93.058	0.639	71.217	1.00	35.60
3452	CB	GLN	A	429	-92.486	0.589	69.796	1.00	35.44
3453	CG	GLN	A	429	-93.417	1.184	68.724	1.00	35.62
3454	CD	GLN	A	429	-92.719	1.477	67.396	1.00	38.22
3455	OE1	GLN	A	429	-93.227	2.261	66.592	1.00	40.96
3456	NE2	GLN	A	429	-91.551	0.881	67.176	1.00	38.12
3457	C	GLN	A	429	-92.209	-0.207	72.154	1.00	35.00
3458	O	GLN	A	429	-91.854	-1.355	71.853	1.00	34.86

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FIGURE 3 BP

A	B	C	D	E	F	G	H	I	J
3459	N	TYR	A	430	-91.878	0.358	73.305	1.00	33.75
3460	CA	TYR	A	430	-91.023	-0.352	74.234	1.00	32.81
3461	CB	TYR	A	430	-89.564	0.064	74.034	1.00	32.27
3462	CG	TYR	A	430	-88.572	-0.952	74.548	1.00	32.27
3463	CD1	TYR	A	430	-88.372	-1.136	75.912	1.00	31.41
3464	CE1	TYR	A	430	-87.458	-2.055	76.375	1.00	30.09
3465	CZ	TYR	A	430	-86.754	-2.823	75.479	1.00	29.57
3466	OH	TYR	A	430	-85.842	-3.748	75.924	1.00	30.27
3467	CE2	TYR	A	430	-86.937	-2.669	74.135	1.00	30.11
3468	CD2	TYR	A	430	-87.845	-1.743	73.670	1.00	31.00
3469	C	TYR	A	430	-91.460	-0.001	75.616	1.00	32.40
3470	O	TYR	A	430	-91.103	1.050	76.118	1.00	32.17
3471	N	TYR	A	431	-92.212	-0.893	76.252	1.00	32.42
3472	CA	TYR	A	431	-92.767	-0.577	77.562	1.00	32.06
3473	CB	TYR	A	431	-94.292	-0.733	77.539	1.00	32.42
3474	CG	TYR	A	431	-95.081	0.337	76.833	1.00	31.65
3475	CD1	TYR	A	431	-95.581	1.422	77.540	1.00	32.43
3476	CE1	TYR	A	431	-96.316	2.407	76.939	1.00	30.12
3477	CZ	TYR	A	431	-96.589	2.329	75.614	1.00	32.47
3478	OH	TYR	A	431	-97.356	3.326	75.062	1.00	33.60
3479	CE2	TYR	A	431	-96.127	1.250	74.856	1.00	33.82
3480	CD2	TYR	A	431	-95.369	0.250	75.484	1.00	32.58
3481	C	TYR	A	431	-92.287	-1.480	78.661	1.00	31.67
3482	O	TYR	A	431	-91.939	-2.624	78.430	1.00	31.60
3483	N	SER	A	432	-92.306	-0.945	79.874	1.00	31.91
3484	CA	SER	A	432	-92.099	-1.718	81.078	1.00	31.56
3485	CB	SER	A	432	-90.753	-1.434	81.740	1.00	31.38
3486	OG	SER	A	432	-90.655	-0.102	82.176	1.00	31.53
3487	C	SER	A	432	-93.243	-1.288	81.969	1.00	31.64
3488	O	SER	A	432	-93.897	-0.290	81.701	1.00	31.32
3489	N	VAL	A	433	-93.468	-2.028	83.044	1.00	32.12
3490	CA	VAL	A	433	-94.595	-1.748	83.903	1.00	32.27
3491	CB	VAL	A	433	-95.828	-2.618	83.507	1.00	32.40
3492	CG1	VAL	A	433	-95.619	-4.070	83.904	1.00	31.04
3493	CG2	VAL	A	433	-97.112	-2.068	84.124	1.00	32.36
3494	C	VAL	A	433	-94.274	-1.963	85.369	1.00	32.44
3495	O	VAL	A	433	-93.372	-2.701	85.730	1.00	31.61
3496	N	SER	A	434	-95.023	-1.262	86.204	1.00	33.86
3497	CA	SER	A	434	-94.922	-1.386	87.639	1.00	34.71
3498	CB	SER	A	434	-94.116	-0.239	88.219	1.00	34.65
3499	OG	SER	A	434	-93.846	-0.483	89.584	1.00	36.01
3500	C	SER	A	434	-96.338	-1.348	88.172	1.00	35.48
3501	O	SER	A	434	-97.036	-0.342	88.049	1.00	35.33
3502	N	PHE	A	435	-96.769	-2.459	88.744	1.00	36.86
3503	CA	PHE	A	435	-98.107	-2.563	89.302	1.00	38.49
3504	CB	PHE	A	435	-98.622	-3.995	89.168	1.00	38.26
3505	CG	PHE	A	435	-99.027	-4.364	87.763	1.00	38.43
3506	CD1	PHE	A	435	-98.122	-4.949	86.896	1.00	37.43
3507	CE1	PHE	A	435	-98.504	-5.282	85.594	1.00	37.26
3508	CZ	PHE	A	435	-99.785	-5.029	85.169	1.00	37.65
3509	CE2	PHE	A	435	-100.696	-4.457	86.027	1.00	37.28

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FIGURE 3 BQ

A	B	C	D	E	F	G	H	I	J
3510	CD2	PHE	A	435	-100.321	-4.125	87.313	1.00	37.90
3511	C	PHE	A	435	-98.106	-2.173	90.765	1.00	40.00
3512	O	PHE	A	435	-97.077	-2.255	91.437	1.00	40.12
3513	N	SER	A	436	-99.263	-1.743	91.258	1.00	41.50
3514	CA	SER	A	436	-99.396	-1.420	92.668	1.00	42.84
3515	CB	SER	A	436	-100.668	-0.616	92.945	1.00	42.51
3516	OG	SER	A	436	-101.832	-1.396	92.751	1.00	42.16
3517	C	SER	A	436	-99.401	-2.738	93.418	1.00	44.01
3518	O	SER	A	436	-99.467	-3.797	92.803	1.00	44.38
3519	N	LYS	A	437	-99.349	-2.673	94.742	1.00	45.22
3520	CA	LYS	A	437	-99.231	-3.868	95.563	1.00	46.58
3521	CB	LYS	A	437	-99.519	-3.534	97.022	1.00	47.47
3522	CG	LYS	A	437	-98.703	-4.324	98.032	1.00	49.42
3523	CD	LYS	A	437	-97.423	-3.575	98.403	1.00	53.36
3524	CE	LYS	A	437	-96.292	-3.911	97.451	1.00	54.76
3525	NZ	LYS	A	437	-96.001	-5.369	97.525	1.00	55.80
3526	C	LYS	A	437	-100.119	-5.016	95.119	1.00	46.93
3527	O	LYS	A	437	-99.677	-6.169	95.071	1.00	46.90
3528	N	GLU	A	438	-101.372	-4.706	94.805	1.00	47.53
3529	CA	GLU	A	438	-102.327	-5.732	94.398	1.00	47.90
3530	CB	GLU	A	438	-103.535	-5.759	95.349	1.00	48.13
3531	CG	GLU	A	438	-103.670	-7.012	96.205	1.00	50.29
3532	CD	GLU	A	438	-103.291	-6.804	97.667	1.00	54.05
3533	OE1	GLU	A	438	-102.553	-5.838	97.971	1.00	54.69
3534	OE2	GLU	A	438	-103.741	-7.613	98.523	1.00	55.47
3535	C	GLU	A	438	-102.787	-5.599	92.938	1.00	47.84
3536	O	GLU	A	438	-103.721	-6.277	92.513	1.00	47.88
3537	N	ALA	A	439	-102.131	-4.728	92.179	1.00	47.50
3538	CA	ALA	A	439	-102.429	-4.550	90.755	1.00	47.07
3539	CB	ALA	A	439	-102.587	-5.892	90.059	1.00	46.85
3540	C	ALA	A	439	-103.625	-3.638	90.459	1.00	47.11
3541	O	ALA	A	439	-104.098	-3.563	89.317	1.00	46.76
3542	N	LYS	A	440	-104.113	-2.942	91.478	1.00	46.83
3543	CA	LYS	A	440	-105.192	-1.995	91.258	1.00	46.68
3544	CB	LYS	A	440	-105.515	-1.250	92.544	1.00	47.03
3545	CG	LYS	A	440	-106.782	-1.688	93.236	1.00	48.96
3546	CD	LYS	A	440	-107.510	-0.456	93.794	1.00	51.04
3547	CE	LYS	A	440	-108.953	-0.764	94.181	1.00	52.01
3548	NZ	LYS	A	440	-109.071	-1.200	95.609	1.00	52.86
3549	C	LYS	A	440	-104.740	-0.996	90.203	1.00	46.22
3550	O	LYS	A	440	-105.527	-0.519	89.390	1.00	46.19
3551	N	TYR	A	441	-103.456	-0.665	90.224	1.00	45.65
3552	CA	TYR	A	441	-102.930	0.273	89.247	1.00	44.75
3553	CB	TYR	A	441	-102.638	1.618	89.887	1.00	45.05
3554	CG	TYR	A	441	-103.757	2.132	90.719	1.00	46.12
3555	CD1	TYR	A	441	-103.946	1.675	92.008	1.00	47.00
3556	OE1	TYR	A	441	-104.978	2.143	92.768	1.00	49.02
3557	CZ	TYR	A	441	-105.840	3.081	92.239	1.00	48.21
3558	OH	TYR	A	441	-106.879	3.553	92.992	1.00	50.11
3559	CE2	TYR	A	441	-105.666	3.551	90.970	1.00	48.19
3560	CD2	TYR	A	441	-104.634	3.074	90.216	1.00	47.79

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FIGURE 3 BR

A	B	C	D	E	F	G	H	I	J
3561	C	TYR	A	441	-101.647	-0.214	88.649	1.00	43.69
3562	O	TYR	A	441	-101.063	-1.199	89.091	1.00	43.93
3563	N	TYR	A	442	-101.201	0.510	87.641	1.00	42.36
3564	CA	TYR	A	442	-99.931	0.216	87.042	1.00	41.07
3565	CB	TYR	A	442	-100.000	-1.018	86.132	1.00	40.75
3566	CG	TYR	A	442	-100.855	-0.913	84.889	1.00	40.36
3567	CD1	TYR	A	442	-102.204	-1.254	84.910	1.00	41.27
3568	CE1	TYR	A	442	-102.980	-1.178	83.765	1.00	41.19
3569	CZ	TYR	A	442	-102.399	-0.780	82.579	1.00	41.57
3570	OH	TYR	A	442	-103.143	-0.689	81.413	1.00	43.14
3571	CE2	TYR	A	442	-101.067	-0.462	82.544	1.00	40.67
3572	CD2	TYR	A	442	-100.305	-0.540	83.687	1.00	39.41
3573	C	TYR	A	442	-99.388	1.449	86.348	1.00	40.30
3574	O	TYR	A	442	-100.133	2.210	85.738	1.00	40.22
3575	N	GLN	A	443	-98.094	1.680	86.538	1.00	39.41
3576	CA	GLN	A	443	-97.395	2.747	85.853	1.00	38.70
3577	CB	GLN	A	443	-96.279	3.327	86.727	1.00	38.39
3578	CG	GLN	A	443	-95.240	4.082	85.896	1.00	38.84
3579	CD	GLN	A	443	-94.091	4.622	86.703	1.00	40.32
3580	OE1	GLN	A	443	-93.503	3.910	87.518	1.00	41.05
3581	NE2	GLN	A	443	-93.766	5.891	86.485	1.00	41.05
3582	C	GLN	A	443	-96.764	2.131	84.610	1.00	38.01
3583	O	GLN	A	443	-96.125	1.095	84.700	1.00	37.78
3584	N	LEU	A	444	-96.940	2.771	83.467	1.00	37.74
3585	CA	LEU	A	444	-96.355	2.296	82.222	1.00	37.77
3586	CB	LEU	A	444	-97.366	2.380	81.085	1.00	37.13
3587	CG	LEU	A	444	-98.305	1.201	80.831	1.00	37.70
3588	CD1	LEU	A	444	-97.554	-0.119	80.598	1.00	36.82
3589	CD2	LEU	A	444	-99.127	1.538	79.619	1.00	37.81
3590	C	LEU	A	444	-95.149	3.134	81.840	1.00	37.67
3591	O	LEU	A	444	-95.249	4.354	81.787	1.00	37.66
3592	N	ARG	A	445	-94.021	2.481	81.569	1.00	37.52
3593	CA	ARG	A	445	-92.847	3.195	81.086	1.00	38.14
3594	CB	ARG	A	445	-91.595	2.893	81.910	1.00	38.71
3595	CG	ARG	A	445	-90.476	3.904	81.626	1.00	41.69
3596	CD	ARG	A	445	-89.035	3.355	81.580	1.00	46.39
3597	NE	ARG	A	445	-88.890	2.061	82.239	1.00	50.92
3598	CZ	ARG	A	445	-87.728	1.532	82.600	1.00	53.29
3599	NH1	ARG	A	445	-87.692	0.347	83.187	1.00	54.23
3600	NH2	ARG	A	445	-86.597	2.191	82.378	1.00	56.43
3601	C	ARG	A	445	-92.546	2.861	79.636	1.00	37.56
3602	O	ARG	A	445	-92.251	1.711	79.310	1.00	37.23
3603	N	CYS	A	446	-92.611	3.876	78.780	1.00	37.08
3604	CA	CYS	A	446	-92.279	3.741	77.367	1.00	37.15
3605	CB	CYS	A	446	-93.322	4.463	76.533	1.00	37.41
3606	SG	CYS	A	446	-92.785	5.337	75.036	1.00	40.87
3607	C	CYS	A	446	-90.898	4.336	77.132	1.00	36.37
3608	O	CYS	A	446	-90.661	5.485	77.486	1.00	36.82
3609	N	SER	A	447	-89.998	3.563	76.525	1.00	35.37
3610	CA	SER	A	447	-88.610	3.991	76.336	1.00	34.30
3611	CB	SER	A	447	-87.654	2.890	76.804	1.00	34.46

**REPLACEMENT SHEET**  
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**FIGURE 3 BS**

A	B	C	D	E	F	G	H	I	J
3612	OG	SER	A	447	-87.701	2.732	78.204	1.00	34.85
3613	C	SER	A	447	-88.239	4.319	74.915	1.00	33.43
3614	O	SER	A	447	-87.094	4.618	74.643	1.00	33.57
3615	N	GLY	A	448	-89.182	4.234	73.992	1.00	32.46
3616	CA	GLY	A	448	-88.852	4.502	72.609	1.00	31.79
3617	C	GLY	A	448	-89.927	4.020	71.674	1.00	31.31
3618	O	GLY	A	448	-90.811	3.283	72.087	1.00	31.10
3619	N	PRO	A	449	-89.814	4.362	70.396	1.00	31.28
3620	CA	PRO	A	449	-88.640	5.032	69.849	1.00	31.20
3621	CB	PRO	A	449	-88.794	4.827	68.339	1.00	30.61
3622	CG	PRO	A	449	-90.184	4.583	68.108	1.00	31.03
3623	CD	PRO	A	449	-90.876	4.213	69.391	1.00	30.97
3624	C	PRO	A	449	-88.635	6.528	70.115	1.00	31.96
3625	O	PRO	A	449	-87.680	7.179	69.722	1.00	32.18
3626	N	GLY	A	450	-89.682	7.061	70.738	1.00	32.70
3627	CA	GLY	A	450	-89.753	8.483	71.013	1.00	32.98
3628	C	GLY	A	450	-89.202	8.746	72.390	1.00	33.64
3629	O	GLY	A	450	-88.690	7.825	73.035	1.00	34.15
3630	N	LEU	A	451	-89.290	9.995	72.836	1.00	33.79
3631	CA	LEU	A	451	-88.827	10.382	74.155	1.00	34.03
3632	CB	LEU	A	451	-89.036	11.877	74.370	1.00	34.31
3633	CG	LEU	A	451	-87.992	12.788	73.719	1.00	35.35
3634	CD1	LEU	A	451	-86.969	12.001	72.895	1.00	35.84
3635	CD2	LEU	A	451	-88.668	13.841	72.885	1.00	35.06
3636	C	LEU	A	451	-89.641	9.597	75.152	1.00	34.16
3637	O	LEU	A	451	-90.822	9.376	74.945	1.00	32.92
3638	N	PRO	A	452	-89.006	9.168	76.234	1.00	34.62
3639	CA	PRO	A	452	-89.692	8.365	77.239	1.00	35.26
3640	CB	PRO	A	452	-88.680	8.295	78.378	1.00	35.14
3641	CG	PRO	A	452	-87.367	8.452	77.700	1.00	35.39
3642	CD	PRO	A	452	-87.601	9.421	76.585	1.00	34.60
3643	C	PRO	A	452	-90.976	9.037	77.703	1.00	36.29
3644	O	PRO	A	452	-91.033	10.267	77.861	1.00	35.67
3645	N	LEU	A	453	-91.990	8.205	77.942	1.00	37.07
3646	CA	LEU	A	453	-93.302	8.660	78.367	1.00	37.52
3647	CB	LEU	A	453	-94.288	8.560	77.197	1.00	37.81
3648	CG	LEU	A	453	-95.788	8.610	77.501	1.00	39.87
3649	CD1	LEU	A	453	-96.222	7.270	78.100	1.00	42.12
3650	CD2	LEU	A	453	-96.606	8.902	76.249	1.00	40.21
3651	C	LEU	A	453	-93.766	7.839	79.557	1.00	37.68
3652	O	LEU	A	453	-93.807	6.603	79.495	1.00	38.37
3653	N	TYR	A	454	-94.105	8.512	80.650	1.00	37.49
3654	CA	TYR	A	454	-94.533	7.817	81.851	1.00	38.10
3655	CB	TYR	A	454	-93.640	8.189	83.048	1.00	38.22
3656	CG	TYR	A	454	-92.176	7.767	82.915	1.00	37.53
3657	CD1	TYR	A	454	-91.644	6.727	83.688	1.00	38.56
3658	CE1	TYR	A	454	-90.297	6.357	83.572	1.00	37.18
3659	CZ	TYR	A	454	-89.480	7.027	82.664	1.00	37.23
3660	OH	TYR	A	454	-88.158	6.677	82.510	1.00	35.84
3661	CE2	TYR	A	454	-89.987	8.050	81.896	1.00	37.06
3662	CD2	TYR	A	454	-91.324	8.415	82.027	1.00	37.67

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**FIGURE 3 BT**

A	B	C	D	E	F	G	H	I	J
3663	C	TYR	A	454	-96.006	8.114	82.138	1.00	38.94
3664	O	TYR	A	454	-96.412	9.285	82.250	1.00	39.17
3665	N	THR	A	455	-96.809	7.053	82.236	1.00	39.20
3666	CA	THR	A	455	-98.254	7.185	82.439	1.00	39.22
3667	CB	THR	A	455	-99.019	6.835	81.162	1.00	39.25
3668	OG1	THR	A	455	-98.643	5.521	80.742	1.00	39.10
3669	CG2	THR	A	455	-98.623	7.722	80.004	1.00	38.59
3670	C	THR	A	455	-98.765	6.266	83.525	1.00	39.36
3671	O	THR	A	455	-98.164	5.233	83.805	1.00	39.52
3672	N	LEU	A	456	-99.898	6.633	84.117	1.00	39.82
3673	CA	LEU	A	456	-100.491	5.858	85.214	1.00	40.25
3674	CB	LEU	A	456	-100.579	6.720	86.469	1.00	39.82
3675	CG	LEU	A	456	-100.467	6.139	87.885	1.00	40.98
3676	CD1	LEU	A	456	-101.771	6.252	88.653	1.00	41.57
3677	CD2	LEU	A	456	-99.910	4.726	87.932	1.00	40.08
3678	C	LEU	A	456	-101.868	5.350	84.786	1.00	40.38
3679	O	LEU	A	456	-102.603	6.048	84.108	1.00	39.68
3680	N	HIS	A	457	-102.194	4.119	85.158	1.00	41.17
3681	CA	HIS	A	457	-103.444	3.502	84.730	1.00	41.91
3682	CB	HIS	A	457	-103.180	2.582	83.539	1.00	41.62
3683	CG	HIS	A	457	-102.392	3.219	82.446	1.00	40.45
3684	ND1	HIS	A	457	-102.923	3.478	81.203	1.00	40.12
3685	CE1	HIS	A	457	-102.000	4.042	80.444	1.00	40.89
3686	NE2	HIS	A	457	-100.887	4.148	81.149	1.00	39.27
3687	CD2	HIS	A	457	-101.105	3.634	82.401	1.00	39.96
3688	C	HIS	A	457	-104.079	2.657	85.822	1.00	42.78
3689	O	HIS	A	457	-103.378	2.136	86.677	1.00	43.02
3690	N	SER	A	458	-105.402	2.505	85.786	1.00	43.95
3691	CA	SER	A	458	-106.073	1.632	86.748	1.00	45.16
3692	CB	SER	A	458	-107.379	2.246	87.258	1.00	45.17
3693	OG	SER	A	458	-108.239	2.594	86.189	1.00	46.02
3694	C	SER	A	458	-106.323	0.289	86.073	1.00	46.01
3695	O	SER	A	458	-106.669	0.236	84.896	1.00	46.26
3696	N	SER	A	459	-106.152	-0.801	86.803	1.00	46.78
3697	CA	SER	A	459	-106.269	-2.091	86.161	1.00	48.21
3698	CB	SER	A	459	-105.459	-3.138	86.918	1.00	48.17
3699	OG	SER	A	459	-106.311	-3.969	87.687	1.00	50.02
3700	C	SER	A	459	-107.720	-2.557	85.981	1.00	48.79
3701	O	SER	A	459	-107.998	-3.424	85.163	1.00	48.63
3702	N	VAL	A	460	-108.645	-1.979	86.736	1.00	49.68
3703	CA	VAL	A	460	-110.037	-2.418	86.653	1.00	50.36
3704	CB	VAL	A	460	-110.947	-1.659	87.648	1.00	50.46
3705	CG1	VAL	A	460	-111.091	-0.184	87.247	1.00	50.00
3706	CG2	VAL	A	460	-112.299	-2.353	87.759	1.00	50.44
3707	C	VAL	A	460	-110.590	-2.367	85.222	1.00	50.55
3708	O	VAL	A	460	-111.196	-3.329	84.753	1.00	50.43
3709	N	ASN	A	461	-110.347	-1.263	84.525	1.00	51.08
3710	CA	ASN	A	461	-110.790	-1.098	83.141	1.00	51.75
3711	CB	ASN	A	461	-111.875	-0.044	83.087	1.00	52.15
3712	CG	ASN	A	461	-111.562	1.131	83.977	1.00	52.89
3713	OD1	ASN	A	461	-110.392	1.480	84.174	1.00	54.11

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**FIGURE 3 BU**

A	B	C	D	E	F	G	H	I	J
3714	ND2	ASN	A	461	-112.601	1.738	84.544	1.00	53.79
3715	C	ASN	A	461	-109.650	-0.651	82.237	1.00	51.86
3716	O	ASN	A	461	-109.876	-0.108	81.145	1.00	52.00
3717	N	ASP	A	462	-108.424	-0.873	82.703	1.00	51.87
3718	CA	ASP	A	462	-107.239	-0.449	81.967	1.00	51.68
3719	CB	ASP	A	462	-106.868	-1.472	80.893	1.00	51.24
3720	CG	ASP	A	462	-106.742	-2.872	81.454	1.00	50.98
3721	OD1	ASP	A	462	-107.424	-3.789	80.942	1.00	49.36
3722	OD2	ASP	A	462	-105.997	-3.149	82.421	1.00	50.64
3723	C	ASP	A	462	-107.451	0.923	81.349	1.00	51.78
3724	O	ASP	A	462	-107.266	1.101	80.150	1.00	52.32
3725	N	LYS	A	463	-107.868	1.885	82.165	1.00	51.73
3726	CA	LYS	A	463	-108.046	3.251	81.686	1.00	51.61
3727	CB	LYS	A	463	-109.361	3.859	82.195	1.00	52.12
3728	CG	LYS	A	463	-109.216	4.843	83.354	1.00	53.80
3729	CD	LYS	A	463	-110.100	6.079	83.170	1.00	56.48
3730	CE	LYS	A	463	-109.461	7.311	83.813	1.00	57.93
3731	NZ	LYS	A	463	-110.082	8.604	83.381	1.00	58.60
3732	C	LYS	A	463	-106.854	4.066	82.151	1.00	51.09
3733	O	LYS	A	463	-106.292	3.796	83.217	1.00	50.60
3734	N	GLY	A	464	-106.458	5.043	81.342	1.00	50.66
3735	CA	GLY	A	464	-105.315	5.873	81.663	1.00	50.48
3736	C	GLY	A	464	-105.686	7.064	82.518	1.00	50.28
3737	O	GLY	A	464	-106.246	8.038	82.023	1.00	50.43
3738	N	LEU	A	465	-105.370	6.978	83.803	1.00	49.88
3739	CA	LEU	A	465	-105.637	8.055	84.743	1.00	49.61
3740	CB	LEU	A	465	-105.217	7.662	86.155	1.00	49.71
3741	CG	LEU	A	465	-105.779	6.366	86.731	1.00	50.27
3742	CD1	LEU	A	465	-105.786	6.448	88.253	1.00	51.84
3743	CD2	LEU	A	465	-107.180	6.079	86.222	1.00	51.27
3744	C	LEU	A	465	-104.947	9.355	84.351	1.00	49.30
3745	O	LEU	A	465	-105.589	10.412	84.341	1.00	49.57
3746	N	ARG	A	466	-103.655	9.296	84.025	1.00	48.60
3747	CA	ARG	A	466	-102.930	10.524	83.667	1.00	47.99
3748	CB	ARG	A	466	-102.975	11.514	84.835	1.00	48.10
3749	CG	ARG	A	466	-102.409	10.949	86.130	1.00	47.72
3750	CD	ARG	A	466	-102.653	11.822	87.346	1.00	47.83
3751	NE	ARG	A	466	-102.546	11.040	88.565	1.00	47.93
3752	CZ	ARG	A	466	-103.555	10.397	89.137	1.00	47.98
3753	NH1	ARG	A	466	-103.345	9.694	90.240	1.00	48.67
3754	NH2	ARG	A	466	-104.774	10.460	88.618	1.00	47.58
3755	C	ARG	A	466	-101.469	10.364	83.251	1.00	47.62
3756	O	ARG	A	466	-100.840	9.318	83.454	1.00	47.46
3757	N	VAL	A	467	-100.934	11.442	82.689	1.00	46.84
3758	CA	VAL	A	467	-99.541	11.488	82.278	1.00	46.21
3759	CB	VAL	A	467	-99.356	12.388	81.050	1.00	46.28
3760	CG1	VAL	A	467	-97.932	12.294	80.519	1.00	46.55
3761	CG2	VAL	A	467	-100.350	11.991	79.957	1.00	46.39
3762	C	VAL	A	467	-98.669	11.969	83.440	1.00	45.53
3763	O	VAL	A	467	-98.882	13.054	83.985	1.00	45.50
3764	N	LEU	A	468	-97.699	11.140	83.825	1.00	44.68



**REPLACEMENT SHEET**  
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**FIGURE 3 BV**

A	B	C D E	F	G	H	I	J
3765	CA	LEU A 468	-96.816	11.442	84.947	1.00	43.73
3766	CB	LEU A 468	-96.367	10.158	85.624	1.00	43.64
3767	CG	LEU A 468	-97.503	9.347	86.240	1.00	43.86
3768	CD1	LEU A 468	-97.013	7.951	86.605	1.00	42.81
3769	CD2	LEU A 468	-98.064	10.066	87.460	1.00	43.88
3770	C	LEU A 468	-95.607	12.258	84.520	1.00	43.12
3771	O	LEU A 468	-95.192	13.178	85.213	1.00	42.91
3772	N	GLU A 469	-95.043	11.918	83.371	1.00	42.82
3773	CA	GLU A 469	-93.899	12.649	82.844	1.00	42.57
3774	CB	GLU A 469	-92.594	12.183	83.504	1.00	42.47
3775	CG	GLU A 469	-91.348	12.813	82.900	1.00	41.72
3776	CD	GLU A 469	-91.356	14.324	82.998	1.00	42.26
3777	OE1	GLU A 469	-91.186	14.994	81.955	1.00	43.08
3778	OE2	GLU A 469	-91.525	14.845	84.124	1.00	43.00
3779	C	GLU A 469	-93.860	12.397	81.360	1.00	42.39
3780	O	GLU A 469	-93.973	11.263	80.929	1.00	42.87
3781	N	ASP A 470	-93.695	13.449	80.572	1.00	42.38
3782	CA	ASP A 470	-93.706	13.302	79.121	1.00	42.12
3783	CB	ASP A 470	-94.939	13.993	78.533	1.00	42.50
3784	CG	ASP A 470	-94.937	15.502	78.767	1.00	43.52
3785	OD1	ASP A 470	-95.916	16.155	78.347	1.00	46.03
3786	OD2	ASP A 470	-94.015	16.126	79.349	1.00	44.41
3787	C	ASP A 470	-92.479	13.881	78.454	1.00	41.72
3788	O	ASP A 470	-92.426	13.935	77.225	1.00	41.65
3789	N	ASN A 471	-91.512	14.334	79.250	1.00	41.45
3790	CA	ASN A 471	-90.291	14.954	78.717	1.00	41.38
3791	CB	ASN A 471	-89.345	13.921	78.111	1.00	41.20
3792	CG	ASN A 471	-88.528	13.213	79.158	1.00	41.48
3793	OD1	ASN A 471	-87.686	13.822	79.813	1.00	42.74
3794	ND2	ASN A 471	-88.792	11.927	79.350	1.00	41.64
3795	C	ASN A 471	-90.511	16.069	77.712	1.00	41.65
3796	O	ASN A 471	-89.706	16.254	76.792	1.00	42.56
3797	N	SER A 472	-91.589	16.821	77.876	1.00	41.59
3798	CA	SER A 472	-91.828	17.960	76.999	1.00	41.81
3799	CB	SER A 472	-93.152	18.654	77.354	1.00	41.60
3800	OG	SER A 472	-93.323	18.714	78.757	1.00	42.06
3801	C	SER A 472	-90.657	18.937	77.076	1.00	41.50
3802	O	SER A 472	-90.261	19.523	76.070	1.00	41.97
3803	N	ALA A 473	-90.101	19.111	78.268	1.00	41.56
3804	CA	ALA A 473	-88.939	19.980	78.430	1.00	41.91
3805	CB	ALA A 473	-88.488	20.016	79.885	1.00	41.64
3806	C	ALA A 473	-87.798	19.525	77.517	1.00	42.31
3807	O	ALA A 473	-87.299	20.313	76.702	1.00	42.61
3808	N	LEU A 474	-87.403	18.254	77.630	1.00	42.24
3809	CA	LEU A 474	-86.336	17.732	76.787	1.00	42.83
3810	CB	LEU A 474	-86.084	16.245	77.045	1.00	42.90
3811	CG	LEU A 474	-85.137	15.657	75.995	1.00	42.23
3812	CD1	LEU A 474	-83.713	16.182	76.236	1.00	42.80
3813	CD2	LEU A 474	-85.161	14.135	75.983	1.00	42.52
3814	C	LEU A 474	-86.709	17.899	75.336	1.00	43.59
3815	O	LEU A 474	-85.866	18.204	74.498	1.00	43.31

**REPLACEMENT SHEET**  
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**FIGURE 3 BW**

A	B	C	D	E	F	G	H	I	J
3816	N	ASP	A	475	-87.985	17.664	75.044	1.00	44.41
3817	CA	ASP	A	475	-88.480	17.801	73.688	1.00	45.98
3818	CB	ASP	A	475	-89.952	17.387	73.602	1.00	46.18
3819	CG	ASP	A	475	-90.543	17.652	72.244	1.00	48.02
3820	OD1	ASP	A	475	-91.473	18.487	72.152	1.00	51.22
3821	OD2	ASP	A	475	-90.137	17.091	71.206	1.00	50.30
3822	C	ASP	A	475	-88.280	19.218	73.159	1.00	46.17
3823	O	ASP	A	475	-87.850	19.406	72.033	1.00	45.89
3824	N	LYS	A	476	-88.574	20.215	73.980	1.00	47.41
3825	CA	LYS	A	476	-88.398	21.599	73.546	1.00	48.69
3826	CB	LYS	A	476	-88.885	22.580	74.618	1.00	48.90
3827	CG	LYS	A	476	-88.932	24.039	74.148	1.00	51.61
3828	CD	LYS	A	476	-88.942	25.030	75.327	1.00	55.33
3829	CE	LYS	A	476	-90.345	25.232	75.925	1.00	56.83
3830	NZ	LYS	A	476	-91.207	26.170	75.136	1.00	56.78
3831	C	LYS	A	476	-86.937	21.881	73.186	1.00	48.82
3832	O	LYS	A	476	-86.645	22.414	72.117	1.00	49.02
3833	N	MET	A	477	-86.017	21.495	74.061	1.00	49.18
3834	CA	MET	A	477	-84.605	21.775	73.815	1.00	49.80
3835	CB	MET	A	477	-83.759	21.599	75.091	1.00	50.15
3836	CG	MET	A	477	-84.365	20.657	76.117	1.00	52.66
3837	SD	MET	A	477	-83.930	20.972	77.868	1.00	57.93
3838	CE	MET	A	477	-82.154	21.420	77.749	1.00	56.32
3839	C	MET	A	477	-84.024	21.028	72.613	1.00	49.47
3840	O	MET	A	477	-83.227	21.592	71.867	1.00	49.69
3841	N	LEU	A	478	-84.443	19.785	72.398	1.00	49.22
3842	CA	LEU	A	478	-83.955	19.004	71.255	1.00	48.91
3843	CB	LEU	A	478	-84.448	17.553	71.331	1.00	48.51
3844	CG	LEU	A	478	-83.491	16.488	71.884	1.00	46.60
3845	CD1	LEU	A	478	-84.282	15.365	72.515	1.00	44.18
3846	CD2	LEU	A	478	-82.525	17.071	72.895	1.00	44.56
3847	C	LEU	A	478	-84.288	19.589	69.880	1.00	49.49
3848	O	LEU	A	478	-83.632	19.263	68.895	1.00	49.35
3849	N	GLN	A	479	-85.313	20.431	69.801	1.00	50.36
3850	CA	GLN	A	479	-85.698	21.039	68.519	1.00	51.25
3851	CB	GLN	A	479	-86.907	21.951	68.702	1.00	51.64
3852	CG	GLN	A	479	-88.131	21.283	69.315	1.00	53.72
3853	CD	GLN	A	479	-89.118	22.298	69.853	1.00	55.89
3854	OE1	GLN	A	479	-90.320	22.222	69.574	1.00	56.61
3855	NE2	GLN	A	479	-88.613	23.261	70.619	1.00	57.98
3856	C	GLN	A	479	-84.554	21.872	67.949	1.00	51.31
3857	O	GLN	A	479	-84.451	22.073	66.736	1.00	51.16
3858	N	ASN	A	480	-83.704	22.350	68.850	1.00	51.49
3859	CA	ASN	A	480	-82.563	23.184	68.505	1.00	51.84
3860	CB	ASN	A	480	-81.979	23.788	69.773	1.00	52.62
3861	CG	ASN	A	480	-82.306	25.242	69.917	1.00	54.63
3862	OD1	ASN	A	480	-81.950	25.872	70.917	1.00	58.05
3863	ND2	ASN	A	480	-82.980	25.798	68.915	1.00	55.77
3864	C	ASN	A	480	-81.440	22.454	67.805	1.00	51.02
3865	O	ASN	A	480	-80.840	22.959	66.857	1.00	51.24
3866	N	VAL	A	481	-81.162	21.254	68.276	1.00	49.80

**REPLACEMENT SHEET**  
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**FIGURE 3 BX**

A	B	C	D	E	F	G	H	I	J
3867	CA	VAL	A	481	-80.018	20.516	67.792	1.00	48.47
3868	CB	VAL	A	481	-79.408	19.716	68.945	1.00	48.63
3869	CG1	VAL	A	481	-80.492	19.324	69.932	1.00	48.32
3870	CG2	VAL	A	481	-78.657	18.513	68.428	1.00	48.71
3871	C	VAL	A	481	-80.327	19.612	66.612	1.00	47.73
3872	G	VAL	A	481	-81.407	19.019	66.533	1.00	47.70
3873	N	GLN	A	482	-79.385	19.549	65.674	1.00	46.58
3874	CA	GLN	A	482	-79.503	18.657	64.527	1.00	45.60
3875	CB	GLN	A	482	-78.431	18.950	63.478	1.00	45.89
3876	CG	GLN	A	482	-78.803	20.048	62.491	1.00	46.68
3877	CD	GLN	A	482	-77.632	20.450	61.610	1.00	49.12
3878	OE1	GLN	A	482	-77.532	20.021	60.449	1.00	49.65
3879	NE2	GLN	A	482	-76.731	21.264	62.162	1.00	48.59
3880	C	GLN	A	482	-79.347	17.244	65.050	1.00	44.65
3881	O	GLN	A	482	-78.237	16.712	65.161	1.00	44.89
3882	N	MET	A	483	-80.464	16.620	65.381	1.00	43.19
3883	CA	MET	A	483	-80.356	15.304	65.983	1.00	42.31
3884	CB	MET	A	483	-81.138	15.223	67.283	1.00	42.74
3885	CG	MET	A	483	-80.330	15.935	68.344	1.00	43.53
3886	SD	MET	A	483	-80.291	15.168	69.912	1.00	43.97
3887	CE	MET	A	483	-80.958	13.601	69.556	1.00	43.89
3888	C	MET	A	483	-80.512	14.075	65.106	1.00	41.10
3889	O	MET	A	483	-81.270	14.061	64.136	1.00	41.20
3890	N	PRO	A	484	-79.762	13.046	65.477	1.00	39.61
3891	CA	PRO	A	484	-79.678	11.822	64.695	1.00	38.67
3892	CB	PRO	A	484	-78.724	10.954	65.528	1.00	38.29
3893	CG	PRO	A	484	-78.928	11.443	66.883	1.00	37.49
3894	CD	PRO	A	484	-78.952	12.943	66.700	1.00	39.37
3895	C	PRO	A	484	-80.998	11.092	64.600	1.00	38.20
3896	O	PRO	A	484	-81.895	11.222	65.441	1.00	38.10
3897	N	SER	A	485	-81.057	10.237	63.587	1.00	37.51
3898	CA	SER	A	485	-82.207	9.378	63.330	1.00	37.29
3899	CB	SER	A	485	-82.556	9.425	61.842	1.00	37.14
3900	OG	SER	A	485	-83.826	8.897	61.654	1.00	36.93
3901	C	SER	A	485	-82.028	7.904	63.801	1.00	37.17
3902	O	SER	A	485	-80.932	7.476	64.181	1.00	37.88
3903	N	LYS	A	486	-83.109	7.128	63.766	1.00	36.73
3904	CA	LYS	A	486	-83.062	5.746	64.240	1.00	35.49
3905	CB	LYS	A	486	-83.647	5.664	65.654	1.00	35.57
3906	CG	LYS	A	486	-82.929	4.686	66.621	1.00	36.30
3907	CD	LYS	A	486	-83.481	3.262	66.571	1.00	33.64
3908	CE	LYS	A	486	-82.682	2.328	67.460	1.00	31.92
3909	NZ	LYS	A	486	-82.930	2.396	68.930	1.00	30.35
3910	C	LYS	A	486	-83.822	4.812	63.315	1.00	34.74
3911	O	LYS	A	486	-85.052	4.806	63.288	1.00	33.95
3912	N	LYS	A	487	-83.084	4.014	62.554	1.00	34.07
3913	CA	LYS	A	487	-83.705	3.036	61.684	1.00	33.42
3914	CB	LYS	A	487	-83.121	3.101	60.286	1.00	33.59
3915	CG	LYS	A	487	-83.425	1.862	59.468	1.00	36.69
3916	CD	LYS	A	487	-83.800	2.226	58.045	1.00	41.28
3917	CE	LYS	A	487	-83.653	1.024	57.111	1.00	43.84

**REPLACEMENT SHEET**  
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**FIGURE 3 BY**

A	B	C	D	E	F	G	H	I	J
3918	NZ	LYS	A	487	-84.134	1.338	55.736	1.00	43.68
3919	C	LYS	A	487	-83.559	1.619	62.233	1.00	33.03
3920	O	LYS	A	487	-82.439	1.136	62.414	1.00	32.66
3921	N	LEU	A	488	-84.705	0.972	62.468	1.00	31.94
3922	CA	LEU	A	488	-84.793	-0.386	62.982	1.00	31.33
3923	CB	LEU	A	488	-85.744	-0.441	64.170	1.00	30.72
3924	CG	LEU	A	488	-85.506	-1.396	65.334	1.00	33.13
3925	CD1	LEU	A	488	-86.848	-1.982	65.790	1.00	32.47
3926	CD2	LEU	A	488	-84.510	-2.493	65.002	1.00	31.20
3927	C	LEU	A	488	-85.387	-1.281	61.905	1.00	30.55
3928	O	LEU	A	488	-86.536	-1.077	61.486	1.00	30.55
3929	N	ASP	A	489	-84.646	-2.308	61.503	1.00	29.06
3930	CA	ASP	A	489	-85.097	-3.154	60.413	1.00	29.01
3931	CB	ASP	A	489	-84.799	-2.467	59.076	1.00	29.47
3932	CG	ASP	A	489	-85.758	-2.870	57.976	1.00	30.99
3933	OD1	ASP	A	489	-85.810	-2.167	56.953	1.00	34.83
3934	OD2	ASP	A	489	-86.511	-3.858	58.036	1.00	33.27
3935	C	ASP	A	489	-84.422	-4.523	60.479	1.00	28.53
3936	O	ASP	A	489	-83.693	-4.825	61.442	1.00	27.88
3937	N	PHE	A	490	-84.686	-5.359	59.477	1.00	27.83
3938	CA	PHE	A	490	-84.065	-6.681	59.427	1.00	27.72
3939	CB	PHE	A	490	-85.083	-7.764	59.808	1.00	27.43
3940	CG	PHE	A	490	-86.211	-7.913	58.825	1.00	25.57
3941	CD1	PHE	A	490	-86.096	-8.760	57.739	1.00	24.09
3942	CE1	PHE	A	490	-87.138	-8.886	56.816	1.00	22.61
3943	CZ	PHE	A	490	-88.284	-8.191	56.981	1.00	20.58
3944	CE2	PHE	A	490	-88.416	-7.338	58.057	1.00	24.85
3945	CD2	PHE	A	490	-87.384	-7.207	58.984	1.00	24.52
3946	C	PHE	A	490	-83.498	-6.997	58.062	1.00	28.25
3947	O	PHE	A	490	-83.920	-6.426	57.066	1.00	28.31
3948	N	ILE	A	491	-82.527	-7.898	58.021	1.00	29.32
3949	CA	ILE	A	491	-82.030	-8.438	56.761	1.00	30.10
3950	CB	ILE	A	491	-80.513	-8.178	56.552	1.00	30.32
3951	CG1	ILE	A	491	-79.689	-8.904	57.621	1.00	30.59
3952	CD1	ILE	A	491	-78.214	-8.869	57.347	1.00	31.85
3953	CG2	ILE	A	491	-80.177	-6.669	56.546	1.00	27.87
3954	C	ILE	A	491	-82.302	-9.943	56.825	1.00	31.72
3955	O	ILE	A	491	-82.593	-10.502	57.890	1.00	31.10
3956	N	ILE	A	492	-82.223	-10.608	55.684	1.00	33.72
3957	CA	ILE	A	492	-82.437	-12.039	55.670	1.00	35.18
3958	CB	ILE	A	492	-83.369	-12.471	54.533	1.00	35.31
3959	CG1	ILE	A	492	-84.794	-11.984	54.782	1.00	35.48
3960	CD1	ILE	A	492	-85.413	-12.485	56.062	1.00	33.16
3961	CG2	ILE	A	492	-83.373	-13.990	54.431	1.00	36.28
3962	C	ILE	A	492	-81.108	-12.727	55.492	1.00	36.09
3963	O	ILE	A	492	-80.309	-12.335	54.660	1.00	36.32
3964	N	LEU	A	493	-80.869	-13.738	56.318	1.00	37.37
3965	CA	LEU	A	493	-79.707	-14.595	56.191	1.00	38.16
3966	CB	LEU	A	493	-78.732	-14.367	57.335	1.00	37.88
3967	CG	LEU	A	493	-77.484	-13.521	57.096	1.00	39.32
3968	CD1	LEU	A	493	-77.410	-12.362	58.057	1.00	38.41

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**FIGURE 3 BZ**

A	B	C	D	E	F	G	H	I	J
3969	CD2	LEU	A	493	-77.341	-13.071	55.626	1.00	39.89
3970	C	LEU	A	493	-80.233	-16.002	56.305	1.00	38.84
3971	O	LEU	A	493	-80.833	-16.352	57.331	1.00	38.82
3972	N	ASN	A	494	-80.031	-16.812	55.271	1.00	39.50
3973	CA	ASN	A	494	-80.453	-18.206	55.338	1.00	40.92
3974	CB	ASN	A	494	-79.600	-18.967	56.361	1.00	41.46
3975	CG	ASN	A	494	-78.358	-19.602	55.741	1.00	45.04
3976	OD1	ASN	A	494	-77.243	-19.575	56.319	1.00	46.86
3977	ND2	ASN	A	494	-78.544	-20.210	54.567	1.00	47.43
3978	C	ASN	A	494	-81.945	-18.371	55.666	1.00	40.69
3979	O	ASN	A	494	-82.331	-19.235	56.461	1.00	41.21
3980	N	GLU	A	495	-82.775	-17.524	55.069	1.00	40.67
3981	CA	GLU	A	495	-84.229	-17.588	55.257	1.00	40.66
3982	CB	GLU	A	495	-84.765	-18.967	54.842	1.00	41.09
3983	CG	GLU	A	495	-84.249	-19.376	53.471	1.00	43.98
3984	CD	GLU	A	495	-84.930	-20.598	52.893	1.00	48.37
3985	OE1	GLU	A	495	-84.445	-21.079	51.840	1.00	51.01
3986	OE2	GLU	A	495	-85.937	-21.071	53.471	1.00	48.69
3987	C	GLU	A	495	-84.658	-17.227	56.678	1.00	39.77
3988	O	GLU	A	495	-85.761	-17.561	57.119	1.00	40.01
3989	N	THR	A	496	-83.776	-16.535	57.393	1.00	38.18
3990	CA	THR	A	496	-84.084	-16.095	58.738	1.00	36.33
3991	CB	THR	A	496	-83.142	-16.770	59.731	1.00	36.57
3992	OG1	THR	A	496	-83.225	-18.189	59.564	1.00	38.87
3993	CG2	THR	A	496	-83.619	-16.538	61.165	1.00	36.12
3994	C	THR	A	496	-83.939	-14.588	58.848	1.00	34.71
3995	O	THR	A	496	-83.125	-13.969	58.162	1.00	34.61
3996	N	LYS	A	497	-84.731	-14.003	59.723	1.00	32.91
3997	CA	LYS	A	497	-84.633	-12.587	59.997	1.00	31.43
3998	CB	LYS	A	497	-85.966	-12.072	60.503	1.00	31.44
3999	CG	LYS	A	497	-86.894	-11.560	59.455	1.00	33.48
4000	CD	LYS	A	497	-88.294	-11.975	59.816	1.00	37.59
4001	CE	LYS	A	497	-89.300	-10.902	59.526	1.00	39.41
4002	NZ	LYS	A	497	-90.642	-11.494	59.819	1.00	42.04
4003	C	LYS	A	497	-83.617	-12.393	61.106	1.00	29.99
4004	O	LYS	A	497	-83.576	-13.158	62.060	1.00	28.96
4005	N	PHE	A	498	-82.775	-11.384	60.942	1.00	28.58
4006	CA	PHE	A	498	-81.866	-10.940	61.989	1.00	27.19
4007	CB	PHE	A	498	-80.440	-11.404	61.688	1.00	26.62
4008	CG	PHE	A	498	-80.286	-12.894	61.723	1.00	26.36
4009	CD1	PHE	A	498	-80.208	-13.578	62.936	1.00	24.73
4010	CE1	PHE	A	498	-80.079	-14.973	62.967	1.00	23.81
4011	CZ	PHE	A	498	-80.046	-15.676	61.789	1.00	25.41
4012	CE2	PHE	A	498	-80.133	-14.992	60.572	1.00	25.98
4013	CD2	PHE	A	498	-80.268	-13.621	60.550	1.00	25.49
4014	C	PHE	A	498	-82.017	-9.418	62.009	1.00	26.34
4015	O	PHE	A	498	-81.909	-8.775	60.974	1.00	26.29
4016	N	TRP	A	499	-82.291	-8.842	63.170	1.00	26.02
4017	CA	TRP	A	499	-82.577	-7.424	63.230	1.00	24.99
4018	CB	TRP	A	499	-83.673	-7.166	64.260	1.00	24.90
4019	CG	TRP	A	499	-84.981	-7.748	63.838	1.00	25.23

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**FIGURE 3 CA**

A	B	C	D	E	F	G	H	I	J
4020	CD1	TRP	A	499	-85.310	-9.065	63.808	1.00	26.41
4021	NE1	TRP	A	499	-86.596	-9.225	63.350	1.00	27.66
4022	CE2	TRP	A	499	-87.121	-7.991	63.071	1.00	26.05
4023	CD2	TRP	A	499	-86.130	-7.038	63.361	1.00	25.37
4024	CE3	TRP	A	499	-86.427	-5.679	63.156	1.00	27.08
4025	CZ3	TRP	A	499	-87.688	-5.330	62.669	1.00	26.31
4026	CH2	TRP	A	499	-88.643	-6.314	62.400	1.00	26.65
4027	CZ2	TRP	A	499	-88.376	-7.646	62.592	1.00	24.51
4028	C	TRP	A	499	-81.345	-6.567	63.474	1.00	25.20
4029	O	TRP	A	499	-80.363	-7.016	64.064	1.00	24.93
4030	N	TYR	A	500	-81.405	-5.332	62.988	1.00	25.23
4031	CA	TYR	A	500	-80.306	-4.401	63.128	1.00	25.42
4032	CB	TYR	A	500	-79.424	-4.413	61.876	1.00	25.54
4033	CG	TYR	A	500	-80.043	-3.753	60.649	1.00	26.64
4034	CD1	TYR	A	500	-79.967	-2.374	60.467	1.00	26.40
4035	CE1	TYR	A	500	-80.512	-1.757	59.350	1.00	26.86
4036	CZ	TYR	A	500	-81.144	-2.519	58.375	1.00	29.46
4037	OH	TYR	A	500	-81.675	-1.882	57.271	1.00	31.13
4038	CE2	TYR	A	500	-81.236	-3.903	58.509	1.00	27.58
4039	CD2	TYR	A	500	-80.682	-4.516	59.653	1.00	27.78
4040	C	TYR	A	500	-80.888	-3.015	63.316	1.00	25.49
4041	O	TYR	A	500	-82.021	-2.755	62.916	1.00	25.52
4042	N	GLN	A	501	-80.125	-2.115	63.926	1.00	25.60
4043	CA	GLN	A	501	-80.560	-0.734	64.056	1.00	25.35
4044	CB	GLN	A	501	-80.978	-0.393	65.490	1.00	24.51
4045	CG	GLN	A	501	-79.863	-0.443	66.506	1.00	23.61
4046	CD	GLN	A	501	-80.323	-0.032	67.887	1.00	22.31
4047	OE1	GLN	A	501	-81.444	-0.365	68.298	1.00	22.73
4048	NE2	GLN	A	501	-79.454	0.672	68.625	1.00	22.12
4049	C	GLN	A	501	-79.435	0.160	63.598	1.00	26.27
4050	O	GLN	A	501	-78.257	-0.165	63.762	1.00	26.85
4051	N	MET	A	502	-79.808	1.270	62.979	1.00	26.86
4052	CA	MET	A	502	-78.845	2.268	62.569	1.00	27.40
4053	CB	MET	A	502	-78.806	2.401	61.057	1.00	26.94
4054	CG	MET	A	502	-77.888	1.412	60.401	1.00	27.66
4055	SD	MET	A	502	-78.030	1.525	58.635	1.00	28.81
4056	CE	MET	A	502	-77.003	0.102	58.082	1.00	24.15
4057	C	MET	A	502	-79.190	3.604	63.181	1.00	27.77
4058	O	MET	A	502	-80.338	4.049	63.127	1.00	28.13
4059	N	ILE	A	503	-78.190	4.233	63.781	1.00	28.03
4060	CA	ILE	A	503	-78.334	5.584	64.271	1.00	27.84
4061	CB	ILE	A	503	-77.488	5.792	65.531	1.00	27.52
4062	CG1	ILE	A	503	-77.796	4.709	66.570	1.00	27.03
4063	CD1	ILE	A	503	-79.208	4.770	67.149	1.00	25.17
4064	CG2	ILE	A	503	-77.738	7.178	66.120	1.00	28.26
4065	C	ILE	A	503	-77.807	6.397	63.101	1.00	28.13
4066	O	ILE	A	503	-76.624	6.346	62.789	1.00	28.71
4067	N	LEU	A	504	-78.698	7.097	62.415	1.00	28.67
4068	CA	LEU	A	504	-78.329	7.843	61.203	1.00	28.90
4069	CB	LEU	A	504	-79.428	7.690	60.152	1.00	28.20
4070	CG	LEU	A	504	-79.790	6.230	59.850	1.00	27.95

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**FIGURE 3 CB**

A	B	C	D	E	F	G	H	I	J
4071	CD1	LEU	A	504	-81.155	6.123	59.168	1.00	26.23
4072	CD2	LEU	A	504	-78.690	5.603	58.982	1.00	27.03
4073	C	LEU	A	504	-78.123	9.320	61.467	1.00	29.01
4074	O	LEU	A	504	-78.904	9.931	62.178	1.00	28.73
4075	N	PRO	A	505	-77.066	9.873	60.896	1.00	29.74
4076	CA	PRO	A	505	-76.772	11.312	60.989	1.00	31.16
4077	CB	PRO	A	505	-75.549	11.487	60.085	1.00	31.00
4078	CG	PRO	A	505	-74.934	10.097	59.988	1.00	30.51
4079	CD	PRO	A	505	-76.051	9.127	60.134	1.00	29.57
4080	C	PRO	A	505	-77.904	12.176	60.441	1.00	32.28
4081	O	PRO	A	505	-78.521	11.795	59.440	1.00	32.31
4082	N	PRO	A	506	-78.141	13.323	61.075	1.00	33.17
4083	CA	PRO	A	506	-79.180	14.272	60.656	1.00	34.45
4084	CB	PRO	A	506	-78.816	15.543	61.445	1.00	34.54
4085	CG	PRO	A	506	-77.406	15.283	61.936	1.00	33.29
4086	CD	PRO	A	506	-77.405	13.821	62.252	1.00	33.00
4087	C	PRO	A	506	-79.089	14.580	59.178	1.00	35.78
4088	O	PRO	A	506	-77.982	14.612	58.641	1.00	35.88
4089	N	HIS	A	507	-80.231	14.829	58.537	1.00	37.58
4090	CA	HIS	A	507	-80.270	15.124	57.098	1.00	39.22
4091	CB	HIS	A	507	-79.544	16.443	56.772	1.00	39.61
4092	CG	HIS	A	507	-79.863	17.558	57.714	1.00	42.21
4093	ND1	HIS	A	507	-81.141	18.054	57.878	1.00	45.27
4094	CE1	HIS	A	507	-81.119	19.030	58.771	1.00	45.00
4095	NE2	HIS	A	507	-79.875	19.182	59.194	1.00	44.55
4096	CD2	HIS	A	507	-79.069	18.276	58.546	1.00	44.21
4097	C	HIS	A	507	-79.615	14.001	56.319	1.00	39.45
4098	O	HIS	A	507	-78.933	14.244	55.321	1.00	39.96
4099	N	PHE	A	508	-79.816	12.774	56.784	1.00	39.94
4100	CA	PHE	A	508	-79.205	11.603	56.160	1.00	40.03
4101	CB	PHE	A	508	-79.652	10.328	56.870	1.00	40.09
4102	CG	PHE	A	508	-79.126	9.095	56.238	1.00	39.51
4103	CD1	PHE	A	508	-77.812	8.718	56.435	1.00	38.08
4104	CE1	PHE	A	508	-77.318	7.584	55.838	1.00	39.51
4105	CZ	PHE	A	508	-78.135	6.829	55.023	1.00	38.62
4106	CE2	PHE	A	508	-79.440	7.203	54.817	1.00	38.70
4107	CD2	PHE	A	508	-79.933	8.331	55.411	1.00	39.14
4108	C	PHE	A	508	-79.514	11.488	54.678	1.00	40.20
4109	O	PHE	A	508	-80.662	11.542	54.283	1.00	40.31
4110	N	ASP	A	509	-78.484	11.302	53.862	1.00	40.70
4111	CA	ASP	A	509	-78.648	11.250	52.417	1.00	40.84
4112	CB	ASP	A	509	-77.932	12.445	51.793	1.00	41.19
4113	CG	ASP	A	509	-78.043	12.470	50.282	1.00	41.42
4114	OD1	ASP	A	509	-78.683	11.570	49.705	1.00	41.34
4115	OD2	ASP	A	509	-77.511	13.354	49.588	1.00	43.36
4116	C	ASP	A	509	-78.100	9.947	51.834	1.00	41.24
4117	O	ASP	A	509	-76.887	9.784	51.664	1.00	40.75
4118	N	LYS	A	510	-79.003	9.037	51.486	1.00	41.67
4119	CA	LYS	A	510	-78.603	7.714	51.023	1.00	42.33
4120	CB	LYS	A	510	-79.794	6.740	50.985	1.00	42.32
4121	CG	LYS	A	510	-80.791	6.917	49.848	1.00	43.62

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**FIGURE 3 CC**

A	B	C	D	E	F	G	H	I	J
4122	CD	LYS	A	510	-82.090	6.159	50.171	1.00	45.42
4123	CE	LYS	A	510	-82.783	5.623	48.925	1.00	47.10
4124	NZ	LYS	A	510	-82.855	6.597	47.790	1.00	47.41
4125	C	LYS	A	510	-77.819	7.743	49.722	1.00	42.64
4126	O	LYS	A	510	-77.310	6.719	49.270	1.00	42.28
4127	N	SER	A	511	-77.692	8.930	49.138	1.00	43.25
4128	CA	SER	A	511	-76.883	9.063	47.932	1.00	43.68
4129	CB	SER	A	511	-77.379	10.205	47.035	1.00	43.86
4130	OG	SER	A	511	-76.905	11.463	47.490	1.00	44.84
4131	C	SER	A	511	-75.422	9.286	48.310	1.00	43.23
4132	O	SER	A	511	-74.537	9.182	47.463	1.00	43.76
4133	N	LYS	A	512	-75.169	9.579	49.580	1.00	42.43
4134	CA	LYS	A	512	-73.794	9.814	50.039	1.00	42.01
4135	CB	LYS	A	512	-73.739	11.035	50.962	1.00	42.16
4136	CG	LYS	A	512	-72.528	11.947	50.735	1.00	45.95
4137	CD	LYS	A	512	-71.856	12.418	52.058	1.00	48.83
4138	CE	LYS	A	512	-71.003	11.298	52.684	1.00	50.74
4139	NZ	LYS	A	512	-70.193	11.690	53.896	1.00	50.48
4140	C	LYS	A	512	-73.221	8.593	50.766	1.00	40.83
4141	O	LYS	A	512	-73.963	7.736	51.244	1.00	40.45
4142	N	LYS	A	513	-71.897	8.529	50.858	1.00	39.72
4143	CA	LYS	A	513	-71.213	7.427	51.522	1.00	38.40
4144	CB	LYS	A	513	-69.996	6.989	50.709	1.00	38.25
4145	CG	LYS	A	513	-70.307	6.475	49.304	1.00	39.78
4146	CD	LYS	A	513	-70.907	5.066	49.311	1.00	41.04
4147	CE	LYS	A	513	-71.269	4.597	47.895	1.00	41.89
4148	NZ	LYS	A	513	-72.232	5.519	47.227	1.00	41.74
4149	C	LYS	A	513	-70.757	7.856	52.912	1.00	37.48
4150	O	LYS	A	513	-69.953	8.789	53.048	1.00	37.92
4151	N	TYR	A	514	-71.268	7.195	53.946	1.00	35.23
4152	CA	TYR	A	514	-70.863	7.526	55.307	1.00	32.93
4153	CB	TYR	A	514	-72.074	7.652	56.209	1.00	32.28
4154	CG	TYR	A	514	-73.060	8.688	55.783	1.00	31.98
4155	CD1	TYR	A	514	-73.117	9.915	56.424	1.00	32.59
4156	CE1	TYR	A	514	-74.022	10.865	56.046	1.00	32.89
4157	CZ	TYR	A	514	-74.887	10.595	55.002	1.00	32.35
4158	OH	TYR	A	514	-75.793	11.546	54.617	1.00	32.72
4159	CE2	TYR	A	514	-74.842	9.393	54.348	1.00	30.78
4160	CD2	TYR	A	514	-73.935	8.447	54.742	1.00	31.30
4161	C	TYR	A	514	-69.997	6.439	55.914	1.00	32.06
4162	O	TYR	A	514	-70.142	5.254	55.583	1.00	31.54
4163	N	PRO	A	515	-69.129	6.849	56.839	1.00	30.48
4164	CA	PRO	A	515	-68.353	5.905	57.636	1.00	29.30
4165	CB	PRO	A	515	-67.539	6.808	58.574	1.00	28.88
4166	CG	PRO	A	515	-67.620	8.141	58.014	1.00	30.04
4167	CD	PRO	A	515	-68.874	8.248	57.218	1.00	29.90
4168	C	PRO	A	515	-69.334	5.150	58.500	1.00	28.02
4169	O	PRO	A	515	-70.384	5.677	58.871	1.00	27.42
4170	N	LEU	A	516	-68.986	3.937	58.869	1.00	27.30
4171	CA	LEU	A	516	-69.880	3.186	59.722	1.00	26.37
4172	CB	LEU	A	516	-70.689	2.172	58.915	1.00	26.70



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**FIGURE 3 CD**

A	B	C	D	E	F	G	H	I	J
4173	CG	LEU	A	516	-71.737	1.421	59.739	1.00	27.51
4174	CD1	LEU	A	516	-71.143	0.107	60.286	1.00	28.75
4175	CD2	LEU	A	516	-72.930	1.111	58.894	1.00	27.87
4176	C	LEU	A	516	-69.103	2.517	60.836	1.00	25.59
4177	O	LEU	A	516	-68.033	1.944	60.620	1.00	25.32
4178	N	LEU	A	517	-69.632	2.648	62.041	1.00	24.37
4179	CA	LEU	A	517	-69.042	2.020	63.180	1.00	24.38
4180	CB	LEU	A	517	-68.763	3.039	64.260	1.00	24.08
4181	CG	LEU	A	517	-68.512	2.477	65.647	1.00	23.33
4182	CD1	LEU	A	517	-68.693	3.643	66.634	1.00	20.78
4183	CD2	LEU	A	517	-67.124	1.899	65.722	1.00	19.85
4184	C	LEU	A	517	-70.029	0.995	63.698	1.00	24.90
4185	O	LEU	A	517	-71.158	1.350	64.038	1.00	24.55
4186	N	LEU	A	518	-69.618	-0.264	63.748	1.00	24.40
4187	CA	LEU	A	518	-70.505	-1.278	64.260	1.00	24.51
4188	CB	LEU	A	518	-70.182	-2.654	63.651	1.00	24.62
4189	CG	LEU	A	518	-71.237	-3.727	63.874	1.00	25.59
4190	CD1	LEU	A	518	-72.561	-3.340	63.241	1.00	28.96
4191	CD2	LEU	A	518	-70.737	-5.037	63.300	1.00	25.58
4192	C	LEU	A	518	-70.385	-1.348	65.773	1.00	24.18
4193	O	LEU	A	518	-69.311	-1.628	66.306	1.00	24.04
4194	N	ASP	A	519	-71.491	-1.098	66.451	1.00	23.23
4195	CA	ASP	A	519	-71.551	-1.161	67.897	1.00	23.29
4196	CB	ASP	A	519	-72.561	-0.129	68.393	1.00	22.64
4197	CG	ASP	A	519	-72.754	-0.154	69.871	1.00	22.90
4198	OD1	ASP	A	519	-73.392	0.798	70.357	1.00	22.35
4199	OD2	ASP	A	519	-72.329	-1.057	70.641	1.00	22.78
4200	C	ASP	A	519	-71.965	-2.602	68.256	1.00	23.59
4201	O	ASP	A	519	-73.074	-3.029	67.947	1.00	23.11
4202	N	VAL	A	520	-71.067	-3.365	68.878	1.00	23.40
4203	CA	VAL	A	520	-71.405	-4.751	69.162	1.00	23.18
4204	CB	VAL	A	520	-70.447	-5.726	68.433	1.00	23.42
4205	CG1	VAL	A	520	-69.009	-5.290	68.619	1.00	24.66
4206	CG2	VAL	A	520	-70.757	-5.747	66.962	1.00	26.54
4207	C	VAL	A	520	-71.415	-5.157	70.621	1.00	22.20
4208	O	VAL	A	520	-70.640	-4.661	71.431	1.00	21.70
4209	N	TYR	A	521	-72.314	-6.074	70.946	1.00	21.43
4210	CA	TYR	A	521	-72.241	-6.747	72.222	1.00	20.51
4211	CB	TYR	A	521	-73.386	-6.371	73.173	1.00	20.48
4212	CG	TYR	A	521	-73.188	-7.015	74.510	1.00	20.85
4213	CD1	TYR	A	521	-73.942	-8.121	74.875	1.00	22.44
4214	CE1	TYR	A	521	-73.749	-8.749	76.081	1.00	21.90
4215	CZ	TYR	A	521	-72.776	-8.298	76.934	1.00	20.98
4216	OH	TYR	A	521	-72.628	-8.975	78.120	1.00	22.91
4217	CE2	TYR	A	521	-71.994	-7.202	76.606	1.00	17.30
4218	CD2	TYR	A	521	-72.190	-6.579	75.380	1.00	18.93
4219	C	TYR	A	521	-72.245	-8.204	71.802	1.00	20.17
4220	O	TYR	A	521	-71.201	-8.861	71.829	1.00	19.83
4221	N	ALA	A	522	-73.418	-8.699	71.398	1.00	19.73
4222	CA	ALA	A	522	-73.560	-10.023	70.790	1.00	19.27
4223	CB	ALA	A	522	-72.675	-10.150	69.568	1.00	18.32

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**FIGURE 3 CE**

A	B	C	D	E	F	G	H	I	J
4224	C	ALA	A	522	-73.331	-11.219	71.682	1.00	19.90
4225	O	ALA	A	522	-73.012	-12.306	71.172	1.00	19.97
4226	N	GLY	A	523	-73.464	-11.032	72.990	1.00	19.34
4227	CA	GLY	A	523	-73.369	-12.135	73.907	1.00	19.32
4228	C	GLY	A	523	-74.632	-12.946	73.757	1.00	20.03
4229	O	GLY	A	523	-75.568	-12.532	73.091	1.00	20.55
4230	N	PRO	A	524	-74.663	-14.113	74.377	1.00	20.13
4231	CA	PRO	A	524	-75.830	-14.988	74.295	1.00	20.26
4232	CB	PRO	A	524	-75.374	-16.244	75.038	1.00	20.77
4233	CG	PRO	A	524	-73.854	-16.126	75.050	1.00	20.77
4234	CD	PRO	A	524	-73.578	-14.674	75.200	1.00	19.33
4235	C	PRO	A	524	-77.058	-14.366	74.956	1.00	20.74
4236	O	PRO	A	524	-77.008	-13.932	76.107	1.00	20.66
4237	N	CYS	A	525	-78.149	-14.328	74.197	1.00	20.18
4238	CA	CYS	A	525	-79.388	-13.695	74.587	1.00	20.82
4239	CB	CYS	A	525	-79.949	-14.220	75.910	1.00	20.83
4240	SG	CYS	A	525	-81.741	-13.933	76.063	1.00	22.40
4241	C	CYS	A	525	-79.295	-12.172	74.590	1.00	21.05
4242	O	CYS	A	525	-80.100	-11.502	75.207	1.00	21.55
4243	N	SER	A	526	-78.337	-11.617	73.874	1.00	21.27
4244	CA	SER	A	526	-78.270	-10.175	73.804	1.00	21.42
4245	CB	SER	A	526	-76.872	-9.726	73.409	1.00	21.05
4246	OG	SER	A	526	-76.479	-10.308	72.175	1.00	23.05
4247	C	SER	A	526	-79.276	-9.632	72.799	1.00	21.89
4248	O	SER	A	526	-79.824	-10.374	71.944	1.00	21.77
4249	N	GLN	A	527	-79.518	-8.333	72.903	1.00	21.46
4250	CA	GLN	A	527	-80.321	-7.637	71.925	1.00	22.06
4251	CB	GLN	A	527	-81.803	-7.630	72.305	1.00	22.11
4252	CG	GLN	A	527	-82.670	-6.928	71.305	1.00	20.73
4253	CD	GLN	A	527	-84.138	-7.223	71.507	1.00	22.19
4254	OE1	GLN	A	527	-84.795	-6.589	72.323	1.00	25.90
4255	NE2	GLN	A	527	-84.652	-8.177	70.774	1.00	20.97
4256	C	GLN	A	527	-79.809	-6.226	71.867	1.00	22.91
4257	O	GLN	A	527	-79.926	-5.473	72.839	1.00	23.38
4258	N	LYS	A	528	-79.235	-5.880	70.724	1.00	23.75
4259	CA	LYS	A	528	-78.710	-4.557	70.470	1.00	24.57
4260	CB	LYS	A	528	-77.282	-4.675	69.951	1.00	24.43
4261	CG	LYS	A	528	-76.278	-5.006	71.025	1.00	25.17
4262	CD	LYS	A	528	-76.446	-4.083	72.209	1.00	26.22
4263	CE	LYS	A	528	-75.577	-2.871	72.089	1.00	28.78
4264	NZ	LYS	A	528	-74.300	-3.184	71.422	1.00	30.11
4265	C	LYS	A	528	-79.540	-3.789	69.434	1.00	25.60
4266	O	LYS	A	528	-79.317	-2.603	69.228	1.00	25.41
4267	N	ALA	A	529	-80.443	-4.472	68.732	1.00	26.51
4268	CA	ALA	A	529	-81.299	-3.791	67.759	1.00	27.24
4269	CB	ALA	A	529	-81.477	-4.612	66.498	1.00	26.91
4270	C	ALA	A	529	-82.603	-3.585	68.489	1.00	27.74
4271	O	ALA	A	529	-83.333	-4.533	68.740	1.00	27.80
4272	N	ASP	A	530	-82.887	-2.324	68.814	1.00	28.77
4273	CA	ASP	A	530	-83.936	-1.953	69.769	1.00	28.97
4274	CB	ASP	A	530	-83.238	-1.319	71.013	1.00	29.38

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**FIGURE 3 CF**

A	B	C	D	E	F	G	H	I	J
4275	CG	ASP	A	530	-83.489	-2.074	72.224	1.00	32.06
4276	OD1	ASP	A	530	-84.519	-2.802	72.207	1.00	38.06
4277	OD2	ASP	A	530	-82.737	-2.052	73.222	1.00	33.89
4278	C	ASP	A	530	-84.882	-0.874	69.325	1.00	28.27
4279	O	ASP	A	530	-84.580	-0.095	68.440	1.00	28.50
4280	N	THR	A	531	-85.967	-0.753	70.068	1.00	27.52
4281	CA	THR	A	531	-86.940	0.280	69.847	1.00	28.07
4282	CB	THR	A	531	-88.324	-0.391	69.892	1.00	28.44
4283	OG1	THR	A	531	-89.032	-0.192	68.645	1.00	30.33
4284	CG2	THR	A	531	-89.171	0.162	70.967	1.00	26.74
4285	C	THR	A	531	-86.755	1.388	70.928	1.00	28.23
4286	O	THR	A	531	-87.547	2.323	71.048	1.00	28.80
4287	N	VAL	A	532	-85.679	1.288	71.695	1.00	27.21
4288	CA	VAL	A	532	-85.408	2.263	72.741	1.00	26.82
4289	CB	VAL	A	532	-84.515	1.645	73.848	1.00	26.35
4290	CG1	VAL	A	532	-84.117	2.683	74.881	1.00	25.52
4291	CG2	VAL	A	532	-85.231	0.453	74.497	1.00	24.22
4292	C	VAL	A	532	-84.752	3.544	72.224	1.00	26.84
4293	O	VAL	A	532	-83.931	3.506	71.319	1.00	26.29
4294	N	PHE	A	533	-85.158	4.680	72.786	1.00	27.07
4295	CA	PHE	A	533	-84.536	5.958	72.479	1.00	27.09
4296	CB	PHE	A	533	-85.508	7.102	72.734	1.00	27.71
4297	CG	PHE	A	533	-84.912	8.456	72.501	1.00	29.13
4298	CD1	PHE	A	533	-84.696	8.912	71.215	1.00	32.14
4299	CE1	PHE	A	533	-84.126	10.154	70.995	1.00	33.62
4300	CZ	PHE	A	533	-83.766	10.949	72.073	1.00	31.19
4301	CE2	PHE	A	533	-83.974	10.499	73.354	1.00	30.70
4302	CD2	PHE	A	533	-84.534	9.261	73.568	1.00	29.48
4303	C	PHE	A	533	-83.391	6.127	73.440	1.00	26.36
4304	O	PHE	A	533	-83.572	5.944	74.631	1.00	25.98
4305	N	ARG	A	534	-82.219	6.494	72.943	1.00	26.27
4306	CA	ARG	A	534	-81.077	6.715	73.827	1.00	26.31
4307	CB	ARG	A	534	-80.054	5.544	73.732	1.00	26.04
4308	CG	ARG	A	534	-80.631	4.172	74.077	1.00	26.82
4309	CD	ARG	A	534	-79.697	2.950	73.923	1.00	27.08
4310	NE	ARG	A	534	-80.539	1.780	73.653	1.00	31.36
4311	CZ	ARG	A	534	-80.795	0.855	74.552	1.00	31.52
4312	NH1	ARG	A	534	-80.229	0.938	75.755	1.00	36.57
4313	NH2	ARG	A	534	-81.598	-0.147	74.268	1.00	25.14
4314	C	ARG	A	534	-80.366	8.013	73.470	1.00	26.15
4315	O	ARG	A	534	-80.453	8.471	72.345	1.00	26.29
4316	N	LEU	A	535	-79.665	8.595	74.445	1.00	26.18
4317	CA	LEU	A	535	-78.742	9.696	74.191	1.00	25.53
4318	CB	LEU	A	535	-79.121	10.946	74.943	1.00	25.52
4319	CG	LEU	A	535	-80.485	11.483	74.539	1.00	26.59
4320	CD1	LEU	A	535	-80.859	12.623	75.456	1.00	25.37
4321	CD2	LEU	A	535	-80.462	11.900	73.083	1.00	28.33
4322	C	LEU	A	535	-77.434	9.149	74.709	1.00	25.14
4323	O	LEU	A	535	-77.250	8.983	75.912	1.00	25.10
4324	N	ASN	A	536	-76.537	8.833	73.791	1.00	24.32
4325	CA	ASN	A	536	-75.314	8.160	74.164	1.00	24.10

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**FIGURE 3 CG**

A	B	C	D	E	F	G	H	I	J
4326	CB	ASN	A	536	-75.542	6.637	74.171	1.00	23.27
4327	CG	ASN	A	536	-75.957	6.117	72.820	1.00	23.12
4328	OD1	ASN	A	536	-75.947	6.849	71.853	1.00	24.61
4329	ND2	ASN	A	536	-76.303	4.842	72.740	1.00	24.77
4330	C	ASN	A	536	-74.237	8.537	73.187	1.00	23.67
4331	O	ASN	A	536	-74.445	9.365	72.308	1.00	24.61
4332	N	TRP	A	537	-73.090	7.908	73.320	1.00	23.30
4333	CA	TRP	A	537	-71.958	8.210	72.460	1.00	22.74
4334	CB	TRP	A	537	-70.858	7.203	72.740	1.00	22.48
4335	CG	TRP	A	537	-69.576	7.552	72.158	1.00	22.46
4336	CD1	TRP	A	537	-68.950	8.775	72.196	1.00	22.69
4337	NE1	TRP	A	537	-67.734	8.697	71.564	1.00	21.09
4338	CE2	TRP	A	537	-67.535	7.405	71.150	1.00	21.17
4339	CD2	TRP	A	537	-68.693	6.667	71.490	1.00	21.98
4340	CE3	TRP	A	537	-68.736	5.299	71.187	1.00	20.10
4341	CZ3	TRP	A	537	-67.682	4.743	70.527	1.00	20.95
4342	CH2	TRP	A	537	-66.556	5.513	70.172	1.00	22.34
4343	CZ2	TRP	A	537	-66.468	6.843	70.474	1.00	18.72
4344	C	TRP	A	537	-72.346	8.138	70.989	1.00	22.41
4345	O	TRP	A	537	-71.956	9.001	70.194	1.00	22.36
4346	N	ALA	A	538	-73.086	7.098	70.621	1.00	21.66
4347	CA	ALA	A	538	-73.546	6.952	69.234	1.00	22.46
4348	CB	ALA	A	538	-74.383	5.682	69.071	1.00	21.75
4349	C	ALA	A	538	-74.351	8.187	68.790	1.00	22.98
4350	O	ALA	A	538	-74.259	8.606	67.626	1.00	23.16
4351	N	THR	A	539	-75.139	8.762	69.681	1.00	23.35
4352	CA	THR	A	539	-75.881	9.972	69.340	1.00	24.60
4353	CB	THR	A	539	-76.604	10.534	70.559	1.00	24.65
4354	OG1	THR	A	539	-77.309	9.493	71.232	1.00	23.63
4355	CG2	THR	A	539	-77.680	11.492	70.106	1.00	25.07
4356	C	THR	A	539	-74.925	11.050	68.851	1.00	25.20
4357	O	THR	A	539	-75.174	11.709	67.823	1.00	25.06
4358	N	TYR	A	540	-73.834	11.225	69.598	1.00	25.14
4359	CA	TYR	A	540	-72.796	12.190	69.231	1.00	25.58
4360	CB	TYR	A	540	-71.786	12.369	70.379	1.00	25.49
4361	CG	TYR	A	540	-70.389	12.592	69.877	1.00	26.80
4362	CD1	TYR	A	540	-69.411	11.604	69.993	1.00	27.83
4363	CE1	TYR	A	540	-68.131	11.813	69.515	1.00	28.04
4364	CZ	TYR	A	540	-67.840	13.016	68.896	1.00	30.52
4365	OH	TYR	A	540	-66.589	13.284	68.395	1.00	31.52
4366	CE2	TYR	A	540	-68.812	13.986	68.754	1.00	28.42
4367	CD2	TYR	A	540	-70.053	13.779	69.243	1.00	27.18
4368	C	TYR	A	540	-72.076	11.825	67.935	1.00	25.78
4369	O	TYR	A	540	-71.939	12.653	67.046	1.00	25.81
4370	N	LEU	A	541	-71.590	10.593	67.820	1.00	26.96
4371	CA	LEU	A	541	-70.898	10.186	66.590	1.00	27.12
4372	CB	LEU	A	541	-70.495	8.711	66.645	1.00	27.08
4373	CG	LEU	A	541	-69.503	8.443	67.781	1.00	26.42
4374	CD1	LEU	A	541	-69.291	6.967	67.989	1.00	23.43
4375	CD2	LEU	A	541	-68.189	9.168	67.503	1.00	23.14
4376	C	LEU	A	541	-71.836	10.411	65.430	1.00	27.84

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**FIGURE 3 CH**

A	B	C	D	E	F	G	H	I	J
4377	O	LEU	A	541	-71.422	10.893	64.358	1.00	27.48
4378	N	ALA	A	542	-73.114	10.125	65.656	1.00	28.30
4379	CA	ALA	A	542	-74.115	10.352	64.627	1.00	29.47
4380	CB	ALA	A	542	-75.380	9.549	64.914	1.00	28.86
4381	C	ALA	A	542	-74.428	11.866	64.430	1.00	30.18
4382	O	ALA	A	542	-74.312	12.373	63.326	1.00	30.01
4383	N	SER	A	543	-74.808	12.565	65.492	1.00	30.73
4384	CA	SER	A	543	-75.175	13.964	65.364	1.00	31.65
4385	CB	SER	A	543	-75.760	14.473	66.678	1.00	31.70
4386	OG	SER	A	543	-75.898	15.877	66.643	1.00	34.90
4387	C	SER	A	543	-74.012	14.847	64.909	1.00	31.73
4388	O	SER	A	543	-74.148	15.607	63.954	1.00	31.61
4389	N	THR	A	544	-72.865	14.719	65.567	1.00	31.83
4390	CA	THR	A	544	-71.720	15.573	65.256	1.00	31.83
4391	CB	THR	A	544	-70.999	15.979	66.550	1.00	31.65
4392	OG1	THR	A	544	-71.915	16.668	67.412	1.00	33.07
4393	CG2	THR	A	544	-69.948	16.999	66.255	1.00	31.61
4394	C	THR	A	544	-70.691	15.051	64.240	1.00	31.45
4395	O	THR	A	544	-70.269	15.777	63.342	1.00	30.92
4396	N	GLU	A	545	-70.259	13.806	64.369	1.00	31.31
4397	CA	GLU	A	545	-69.229	13.351	63.448	1.00	30.80
4398	CB	GLU	A	545	-68.293	12.348	64.124	1.00	30.72
4399	CG	GLU	A	545	-67.769	12.799	65.480	1.00	30.89
4400	CD	GLU	A	545	-67.024	14.130	65.432	1.00	32.37
4401	OE1	GLU	A	545	-66.896	14.781	66.495	1.00	33.28
4402	OE2	GLU	A	545	-66.547	14.506	64.341	1.00	30.39
4403	C	GLU	A	545	-69.785	12.793	62.140	1.00	30.42
4404	O	GLU	A	545	-69.031	12.460	61.252	1.00	30.29
4405	N	ASN	A	546	-71.106	12.700	62.032	1.00	30.63
4406	CA	ASN	A	546	-71.774	12.130	60.853	1.00	30.52
4407	CB	ASN	A	546	-71.485	12.942	59.586	1.00	31.73
4408	CG	ASN	A	546	-72.182	14.285	59.585	1.00	34.27
4409	OD1	ASN	A	546	-71.551	15.324	59.354	1.00	38.86
4410	ND2	ASN	A	546	-73.486	14.277	59.845	1.00	35.24
4411	C	ASN	A	546	-71.436	10.667	60.587	1.00	29.32
4412	O	ASN	A	546	-71.340	10.247	59.438	1.00	29.52
4413	N	ILE	A	547	-71.243	9.890	61.637	1.00	27.84
4414	CA	ILE	A	547	-70.946	8.482	61.450	1.00	26.64
4415	CB	ILE	A	547	-69.911	8.034	62.500	1.00	26.27
4416	CG1	ILE	A	547	-68.565	8.719	62.236	1.00	26.48
4417	CD1	ILE	A	547	-67.665	8.765	63.449	1.00	26.42
4418	CG2	ILE	A	547	-69.759	6.518	62.502	1.00	24.99
4419	C	ILE	A	547	-72.220	7.680	61.634	1.00	25.98
4420	O	ILE	A	547	-72.941	7.939	62.561	1.00	26.13
4421	N	ILE	A	548	-72.505	6.723	60.758	1.00	25.24
4422	CA	ILE	A	548	-73.610	5.804	61.027	1.00	24.49
4423	CB	ILE	A	548	-74.033	5.021	59.767	1.00	23.91
4424	CG1	ILE	A	548	-74.572	5.965	58.682	1.00	24.32
4425	CD1	ILE	A	548	-74.462	5.394	57.274	1.00	24.06
4426	CG2	ILE	A	548	-75.111	4.003	60.143	1.00	21.57
4427	C	ILE	A	548	-73.119	4.803	62.051	1.00	24.50

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**FIGURE 3 CI**

A	B	C	D	E	F	G	H	I	J
4428	O	ILE	A	548	-72.060	4.207	61.885	1.00	24.29
4429	N	VAL	A	549	-73.853	4.616	63.125	1.00	25.27
4430	CA	VAL	A	549	-73.409	3.599	64.062	1.00	26.24
4431	CB	VAL	A	549	-72.850	4.126	65.404	1.00	26.50
4432	CG1	VAL	A	549	-73.106	5.599	65.370	1.00	26.95
4433	CG2	VAL	A	549	-73.347	3.282	66.589	1.00	25.59
4434	C	VAL	A	549	-74.476	2.539	64.188	1.00	26.57
4435	O	VAL	A	549	-75.598	2.774	64.634	1.00	26.99
4436	N	ALA	A	550	-74.095	1.333	63.782	1.00	26.46
4437	CA	ALA	A	550	-75.041	0.273	63.625	1.00	25.36
4438	CB	ALA	A	550	-74.866	-0.307	62.236	1.00	25.10
4439	C	ALA	A	550	-74.859	-0.831	64.662	1.00	25.84
4440	O	ALA	A	550	-73.787	-0.974	65.245	1.00	25.55
4441	N	SER	A	551	-75.911	-1.618	64.883	1.00	25.67
4442	CA	SER	A	551	-75.848	-2.771	65.780	1.00	25.80
4443	CB	SER	A	551	-76.385	-2.448	67.169	1.00	25.63
4444	OG	SER	A	551	-75.605	-1.427	67.767	1.00	26.99
4445	C	SER	A	551	-76.639	-3.899	65.148	1.00	25.66
4446	O	SER	A	551	-77.605	-3.679	64.426	1.00	26.15
4447	N	PHE	A	552	-76.233	-5.119	65.415	1.00	25.15
4448	CA	PHE	A	552	-76.852	-6.229	64.729	1.00	23.89
4449	CB	PHE	A	552	-76.036	-6.571	63.486	1.00	22.93
4450	CG	PHE	A	552	-76.510	-7.793	62.761	1.00	22.92
4451	CD1	PHE	A	552	-77.566	-7.723	61.863	1.00	23.12
4452	CE1	PHE	A	552	-77.982	-8.855	61.194	1.00	23.52
4453	CZ	PHE	A	552	-77.326	-10.068	61.406	1.00	20.98
4454	CE2	PHE	A	552	-76.282	-10.127	62.271	1.00	19.73
4455	CD2	PHE	A	552	-75.880	-9.003	62.940	1.00	19.74
4456	C	PHE	A	552	-76.972	-7.425	65.656	1.00	23.86
4457	O	PHE	A	552	-76.033	-7.782	66.366	1.00	22.69
4458	N	ASP	A	553	-78.165	-7.999	65.666	1.00	23.23
4459	CA	ASP	A	553	-78.432	-9.135	66.484	1.00	23.30
4460	CB	ASP	A	553	-79.772	-8.961	67.171	1.00	22.96
4461	CG	ASP	A	553	-79.765	-7.861	68.211	1.00	24.34
4462	OD1	ASP	A	553	-78.682	-7.518	68.751	1.00	22.95
4463	OD2	ASP	A	553	-80.830	-7.297	68.565	1.00	24.54
4464	C	ASP	A	553	-78.444	-10.385	65.602	1.00	23.11
4465	O	ASP	A	553	-79.450	-10.696	64.959	1.00	23.44
4466	N	GLY	A	554	-77.324	-11.094	65.586	1.00	22.92
4467	CA	GLY	A	554	-77.202	-12.304	64.804	1.00	23.01
4468	C	GLY	A	554	-77.458	-13.510	65.656	1.00	23.19
4469	O	GLY	A	554	-78.190	-13.475	66.636	1.00	24.71
4470	N	ARG	A	555	-76.852	-14.605	65.271	1.00	22.95
4471	CA	ARG	A	555	-77.042	-15.828	66.009	1.00	22.74
4472	CB	ARG	A	555	-76.322	-16.959	65.298	1.00	22.40
4473	CG	ARG	A	555	-77.096	-17.432	64.085	1.00	22.64
4474	CD	ARG	A	555	-76.412	-18.535	63.298	1.00	21.05
4475	NE	ARG	A	555	-75.340	-17.971	62.495	1.00	21.39
4476	CZ	ARG	A	555	-74.609	-18.628	61.615	1.00	20.88
4477	NH1	ARG	A	555	-74.797	-19.922	61.413	1.00	19.83
4478	NH2	ARG	A	555	-73.660	-17.977	60.951	1.00	22.48

**REPLACEMENT SHEET**  
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**FIGURE 3 CJ**

A	B	C	D	E	F	G	H	I	J
4479	C	ARG	A	555	-76.548	-15.698	67.438	1.00	22.46
4480	O	ARG	A	555	-75.517	-15.062	67.704	1.00	22.62
4481	N	GLY	A	556	-77.261	-16.343	68.344	1.00	21.79
4482	CA	GLY	A	556	-76.940	-16.274	69.752	1.00	22.02
4483	C	GLY	A	556	-77.758	-15.169	70.399	1.00	22.15
4484	O	GLY	A	556	-77.910	-15.150	71.614	1.00	22.08
4485	N	SER	A	557	-78.266	-14.248	69.581	1.00	22.09
4486	CA	SER	A	557	-79.101	-13.168	70.070	1.00	22.50
4487	CB	SER	A	557	-79.369	-12.109	68.983	1.00	22.77
4488	OG	SER	A	557	-80.178	-12.602	67.952	1.00	23.68
4489	C	SER	A	557	-80.389	-13.713	70.660	1.00	22.46
4490	O	SER	A	557	-80.796	-14.855	70.370	1.00	23.12
4491	N	GLY	A	558	-81.031	-12.903	71.495	1.00	21.95
4492	CA	GLY	A	558	-82.172	-13.372	72.244	1.00	21.91
4493	C	GLY	A	558	-83.538	-12.908	71.794	1.00	22.32
4494	O	GLY	A	558	-83.681	-12.138	70.843	1.00	22.48
4495	N	TYR	A	559	-84.542	-13.428	72.485	1.00	22.60
4496	CA	TYR	A	559	-85.936	-13.011	72.337	1.00	23.63
4497	CB	TYR	A	559	-86.046	-11.519	72.619	1.00	23.18
4498	CG	TYR	A	559	-85.309	-11.140	73.881	1.00	22.60
4499	CD1	TYR	A	559	-84.093	-10.443	73.820	1.00	21.94
4500	CE1	TYR	A	559	-83.414	-10.103	74.965	1.00	22.93
4501	CZ	TYR	A	559	-83.944	-10.442	76.206	1.00	22.63
4502	OH	TYR	A	559	-83.250	-10.095	77.353	1.00	25.67
4503	CE2	TYR	A	559	-85.142	-11.122	76.293	1.00	20.25
4504	CD2	TYR	A	559	-85.812	-11.484	75.126	1.00	19.76
4505	C	TYR	A	559	-86.554	-13.362	71.007	1.00	24.02
4506	O	TYR	A	559	-87.590	-12.798	70.612	1.00	24.15
4507	N	GLN	A	560	-85.919	-14.307	70.320	1.00	24.09
4508	CA	GLN	A	560	-86.393	-14.734	69.006	1.00	23.89
4509	CB	GLN	A	560	-85.471	-14.205	67.913	1.00	23.48
4510	CG	GLN	A	560	-85.151	-12.749	68.029	1.00	25.19
4511	CD	GLN	A	560	-83.789	-12.393	67.462	1.00	25.22
4512	OE1	GLN	A	560	-83.662	-12.141	66.275	1.00	25.93
4513	NE2	GLN	A	560	-82.782	-12.350	68.314	1.00	25.78
4514	C	GLN	A	560	-86.458	-16.259	68.938	1.00	23.85
4515	O	GLN	A	560	-86.474	-16.844	67.859	1.00	24.91
4516	N	GLY	A	561	-86.484	-16.906	70.089	1.00	23.84
4517	CA	GLY	A	561	-86.520	-18.351	70.119	1.00	23.61
4518	C	GLY	A	561	-85.167	-19.004	70.143	1.00	23.59
4519	O	GLY	A	561	-84.167	-18.411	69.753	1.00	24.02
4520	N	ASP	A	562	-85.136	-20.262	70.569	1.00	24.62
4521	CA	ASP	A	562	-83.873	-20.968	70.762	1.00	25.34
4522	CB	ASP	A	562	-84.087	-22.226	71.608	1.00	26.00
4523	CG	ASP	A	562	-84.538	-21.913	73.024	1.00	27.86
4524	OD1	ASP	A	562	-84.353	-20.748	73.464	1.00	28.97
4525	OD2	ASP	A	562	-85.075	-22.777	73.764	1.00	27.91
4526	C	ASP	A	562	-83.094	-21.335	69.497	1.00	25.39
4527	O	ASP	A	562	-81.882	-21.846	69.574	1.00	25.11
4528	N	LYS	A	563	-83.748	-21.442	68.348	1.00	25.53
4529	CA	LYS	A	563	-82.980	-21.863	67.173	1.00	26.86

**REPLACEMENT SHEET**  
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**FIGURE 3 CK**

A	B	C	D	E	F	G	H	I	J
4530	CB	LYS	A	563	-83.846	-21.977	65.921	1.00	27.77
4531	CG	LYS	A	563	-83.032	-22.073	64.615	1.00	32.25
4532	CD	LYS	A	563	-82.349	-23.441	64.443	1.00	38.03
4533	CE	LYS	A	563	-81.407	-23.456	63.234	1.00	41.98
4534	NZ	LYS	A	563	-81.007	-24.894	62.897	1.00	42.27
4535	C	LYS	A	563	-81.846	-20.852	66.973	1.00	25.87
4536	O	LYS	A	563	-80.723	-21.211	66.659	1.00	25.10
4537	N	ILE	A	564	-82.178	-19.585	67.181	1.00	25.38
4538	CA	ILE	A	564	-81.222	-18.495	67.116	1.00	24.64
4539	CB	ILE	A	564	-81.978	-17.204	66.855	1.00	24.95
4540	CG1	ILE	A	564	-82.436	-17.185	65.392	1.00	22.41
4541	CD1	ILE	A	564	-83.370	-16.032	65.032	1.00	23.88
4542	CG2	ILE	A	564	-81.101	-15.977	67.264	1.00	24.06
4543	C	ILE	A	564	-80.378	-18.371	68.401	1.00	24.04
4544	O	ILE	A	564	-79.169	-18.318	68.347	1.00	23.29
4545	N	MET	A	565	-81.011	-18.361	69.560	1.00	24.02
4546	CA	MET	A	565	-80.231	-18.205	70.781	1.00	24.07
4547	CB	MET	A	565	-81.124	-18.123	72.021	1.00	24.25
4548	CG	MET	A	565	-80.342	-17.586	73.226	1.00	23.18
4549	SD	MET	A	565	-81.402	-17.166	74.596	1.00	24.95
4550	CE	MET	A	565	-81.912	-18.826	75.177	1.00	18.04
4551	C	MET	A	565	-79.213	-19.307	70.983	1.00	23.98
4552	O	MET	A	565	-78.067	-19.051	71.322	1.00	23.77
4553	N	HIS	A	566	-79.626	-20.541	70.761	1.00	24.13
4554	CA	HIS	A	566	-78.751	-21.677	71.040	1.00	24.24
4555	CB	HIS	A	566	-79.583	-22.923	71.332	1.00	24.50
4556	CG	HIS	A	566	-80.272	-22.895	72.664	1.00	25.45
4557	ND1	HIS	A	566	-80.001	-21.945	73.626	1.00	24.83
4558	CE1	HIS	A	566	-80.745	-22.178	74.692	1.00	26.00
4559	NE2	HIS	A	566	-81.482	-23.250	74.460	1.00	26.73
4560	CD2	HIS	A	566	-81.209	-23.712	73.197	1.00	24.92
4561	C	HIS	A	566	-77.758	-21.982	69.930	1.00	24.42
4562	O	HIS	A	566	-76.948	-22.908	70.055	1.00	24.12
4563	N	ALA	A	567	-77.799	-21.206	68.850	1.00	24.23
4564	CA	ALA	A	567	-76.884	-21.470	67.754	1.00	24.02
4565	CB	ALA	A	567	-77.084	-20.502	66.634	1.00	23.70
4566	C	ALA	A	567	-75.451	-21.446	68.242	1.00	24.52
4567	O	ALA	A	567	-74.596	-22.139	67.679	1.00	24.73
4568	N	ILE	A	568	-75.173	-20.678	69.303	1.00	24.43
4569	CA	ILE	A	568	-73.782	-20.566	69.754	1.00	24.25
4570	CB	ILE	A	568	-73.323	-19.079	69.995	1.00	24.90
4571	CG1	ILE	A	568	-74.283	-18.269	70.866	1.00	24.12
4572	CD1	ILE	A	568	-74.629	-18.870	72.199	1.00	26.81
4573	CG2	ILE	A	568	-73.190	-18.331	68.659	1.00	24.26
4574	C	ILE	A	568	-73.355	-21.488	70.893	1.00	24.48
4575	O	ILE	A	568	-72.216	-21.409	71.337	1.00	24.62
4576	N	ASN	A	569	-74.254	-22.368	71.332	1.00	24.30
4577	CA	ASN	A	569	-73.985	-23.324	72.406	1.00	24.74
4578	CB	ASN	A	569	-75.171	-24.288	72.582	1.00	25.22
4579	CG	ASN	A	569	-74.954	-25.288	73.711	1.00	27.56
4580	OD1	ASN	A	569	-74.955	-26.518	73.490	1.00	30.92



**REPLACEMENT SHEET**  
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**FIGURE 3 CL**

A	B	C	D	E	F	G	H	I	J
4581	ND2	ASN	A	569	-74.749	-24.780	74.917	1.00	24.95
4582	C	ASN	A	569	-72.709	-24.117	72.207	1.00	25.11
4583	O	ASN	A	569	-72.523	-24.770	71.170	1.00	24.85
4584	N	ARG	A	570	-71.840	-24.050	73.216	1.00	25.17
4585	CA	ARG	A	570	-70.553	-24.717	73.226	1.00	25.82
4586	CB	ARG	A	570	-70.736	-26.230	73.022	1.00	26.02
4587	CG	ARG	A	570	-71.375	-26.931	74.213	1.00	27.93
4588	CD	ARG	A	570	-71.675	-28.402	73.966	1.00	31.13
4589	NE	ARG	A	570	-70.452	-29.132	73.648	1.00	32.29
4590	CZ	ARG	A	570	-69.690	-29.682	74.562	1.00	33.17
4591	NH1	ARG	A	570	-68.579	-30.323	74.215	1.00	33.29
4592	NH2	ARG	A	570	-70.042	-29.578	75.838	1.00	34.18
4593	C	ARG	A	570	-69.628	-24.134	72.167	1.00	26.12
4594	O	ARG	A	570	-68.524	-24.637	71.941	1.00	25.56
4595	N	ARG	A	571	-70.060	-23.043	71.553	1.00	26.31
4596	CA	ARG	A	571	-69.362	-22.561	70.384	1.00	27.64
4597	CB	ARG	A	571	-70.152	-23.020	69.150	1.00	27.88
4598	CG	ARG	A	571	-69.302	-23.654	68.055	1.00	33.59
4599	CD	ARG	A	571	-69.041	-25.192	68.139	1.00	38.10
4600	NE	ARG	A	571	-68.118	-25.568	69.192	1.00	42.59
4601	CZ	ARG	A	571	-67.621	-26.797	69.384	1.00	44.77
4602	NH1	ARG	A	571	-66.813	-27.026	70.412	1.00	43.83
4603	NH2	ARG	A	571	-67.927	-27.795	68.568	1.00	44.81
4604	C	ARG	A	571	-69.154	-21.035	70.397	1.00	26.90
4605	O	ARG	A	571	-69.220	-20.351	69.371	1.00	26.51
4606	N	LEU	A	572	-68.901	-20.509	71.580	1.00	26.30
4607	CA	LEU	A	572	-68.638	-19.081	71.726	1.00	25.74
4608	CB	LEU	A	572	-68.273	-18.761	73.180	1.00	25.20
4609	CG	LEU	A	572	-69.414	-18.145	73.987	1.00	24.72
4610	CD1	LEU	A	572	-69.184	-18.128	75.494	1.00	24.38
4611	CD2	LEU	A	572	-70.753	-18.727	73.627	1.00	22.29
4612	C	LEU	A	572	-67.523	-18.630	70.798	1.00	24.94
4613	O	LEU	A	572	-66.514	-19.328	70.620	1.00	25.41
4614	N	GLY	A	573	-67.690	-17.461	70.206	1.00	23.52
4615	CA	GLY	A	573	-66.667	-16.951	69.324	1.00	23.38
4616	C	GLY	A	573	-66.708	-17.500	67.913	1.00	23.07
4617	O	GLY	A	573	-65.670	-17.588	67.251	1.00	23.52
4618	N	THR	A	574	-67.878	-17.917	67.458	1.00	22.34
4619	CA	THR	A	574	-67.989	-18.402	66.090	1.00	22.60
4620	CB	THR	A	574	-68.252	-19.912	66.024	1.00	22.64
4621	OG1	THR	A	574	-69.451	-20.210	66.750	1.00	22.61
4622	CG2	THR	A	574	-67.123	-20.695	66.740	1.00	21.83
4623	C	THR	A	574	-69.052	-17.677	65.318	1.00	22.31
4624	O	THR	A	574	-68.776	-16.674	64.670	1.00	22.50
4625	N	PHE	A	575	-70.274	-18.175	65.388	1.00	23.15
4626	CA	PHE	A	575	-71.341	-17.610	64.562	1.00	24.35
4627	CB	PHE	A	575	-72.613	-18.479	64.579	1.00	25.15
4628	CG	PHE	A	575	-72.396	-19.952	64.170	1.00	26.50
4629	CD1	PHE	A	575	-71.768	-20.288	62.975	1.00	28.79
4630	CE1	PHE	A	575	-71.591	-21.620	62.598	1.00	30.18
4631	CZ	PHE	A	575	-72.047	-22.650	63.422	1.00	31.75

**REPLACEMENT SHEET**  
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**FIGURE 3 CM**

A	B	C	D	E	F	G	H	I	J
4632	CE2	PHE	A	575	-72.684	-22.335	64.609	1.00	30.94
4633	CD2	PHE	A	575	-72.866	-20.969	64.973	1.00	27.57
4634	C	PHE	A	575	-71.675	-16.180	64.917	1.00	24.87
4635	O	PHE	A	575	-71.877	-15.359	64.024	1.00	26.10
4636	N	GLU	A	576	-71.723	-15.852	66.205	1.00	24.54
4637	CA	GLU	A	576	-72.023	-14.479	66.623	1.00	25.07
4638	CB	GLU	A	576	-71.966	-14.362	68.156	1.00	25.09
4639	CG	GLU	A	576	-70.588	-14.803	68.647	1.00	29.60
4640	CD	GLU	A	576	-70.568	-15.249	70.066	1.00	36.00
4641	OE1	GLU	A	576	-71.647	-15.191	70.738	1.00	41.48
4642	OE2	GLU	A	576	-69.472	-15.633	70.516	1.00	35.97
4643	C	GLU	A	576	-70.981	-13.564	66.016	1.00	24.36
4644	O	GLU	A	576	-71.282	-12.440	65.643	1.00	25.27
4645	N	VAL	A	577	-69.748	-14.049	65.920	1.00	24.26
4646	CA	VAL	A	577	-68.642	-13.263	65.372	1.00	24.64
4647	CB	VAL	A	577	-67.260	-13.920	65.687	1.00	24.48
4648	CG1	VAL	A	577	-67.002	-13.974	67.197	1.00	24.21
4649	CG2	VAL	A	577	-66.137	-13.209	64.978	1.00	22.74
4650	C	VAL	A	577	-68.786	-13.106	63.855	1.00	25.55
4651	O	VAL	A	577	-68.661	-12.000	63.319	1.00	24.62
4652	N	GLU	A	578	-69.052	-14.224	63.176	1.00	26.99
4653	CA	GLU	A	578	-69.236	-14.250	61.724	1.00	28.75
4654	CB	GLU	A	578	-69.516	-15.678	61.200	1.00	29.47
4655	CG	GLU	A	578	-69.474	-15.744	59.666	1.00	35.98
4656	CD	GLU	A	578	-70.678	-16.408	59.000	1.00	41.51
4657	OE1	GLU	A	578	-70.766	-17.667	59.027	1.00	43.85
4658	OE2	GLU	A	578	-71.528	-15.667	58.415	1.00	44.47
4659	C	GLU	A	578	-70.411	-13.385	61.326	1.00	28.18
4660	O	GLU	A	578	-70.366	-12.691	60.315	1.00	29.02
4661	N	ASP	A	579	-71.475	-13.432	62.115	1.00	27.29
4662	CA	ASP	A	579	-72.657	-12.664	61.770	1.00	26.74
4663	CB	ASP	A	579	-73.872	-13.085	62.610	1.00	26.84
4664	CG	ASP	A	579	-74.373	-14.482	62.252	1.00	27.08
4665	OD1	ASP	A	579	-73.862	-15.049	61.275	1.00	27.19
4666	OD2	ASP	A	579	-75.242	-15.106	62.901	1.00	26.42
4667	C	ASP	A	579	-72.434	-11.145	61.787	1.00	26.27
4668	O	ASP	A	579	-73.064	-10.435	61.016	1.00	26.65
4669	N	GLN	A	580	-71.529	-10.640	62.628	1.00	25.40
4670	CA	GLN	A	580	-71.254	-9.199	62.621	1.00	24.43
4671	CB	GLN	A	580	-70.470	-8.754	63.860	1.00	23.63
4672	CG	GLN	A	580	-71.186	-9.012	65.177	1.00	22.96
4673	CD	GLN	A	580	-72.359	-8.089	65.398	1.00	24.48
4674	OE1	GLN	A	580	-72.244	-6.880	65.175	1.00	23.51
4675	NE2	GLN	A	580	-73.487	-8.641	65.855	1.00	23.17
4676	C	GLN	A	580	-70.503	-8.829	61.357	1.00	24.33
4677	O	GLN	A	580	-70.728	-7.786	60.794	1.00	24.44
4678	N	ILE	A	581	-69.606	-9.698	60.910	1.00	25.25
4679	CA	ILE	A	581	-68.882	-9.459	59.670	1.00	25.47
4680	CB	ILE	A	581	-67.740	-10.503	59.505	1.00	25.79
4681	CG1	ILE	A	581	-66.747	-10.358	60.655	1.00	24.36
4682	CD1	ILE	A	581	-65.898	-11.571	60.849	1.00	26.09

**REPLACEMENT SHEET**  
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**FIGURE 3 CN**

A	B	C	D	E	F	G	H	I	J
4683	CG2	ILE	A	581	-67.018	-10.340	58.178	1.00	23.48
4684	C	ILE	A	581	-69.848	-9.479	58.495	1.00	25.99
4685	O	ILE	A	581	-69.893	-8.536	57.709	1.00	25.68
4686	N	GLU	A	582	-70.655	-10.535	58.400	1.00	26.98
4687	CA	GLU	A	582	-71.627	-10.649	57.310	1.00	27.56
4688	CB	GLU	A	582	-72.440	-11.943	57.439	1.00	27.57
4689	CG	GLU	A	582	-72.756	-12.676	56.125	1.00	32.74
4690	CD	GLU	A	582	-72.859	-11.779	54.910	1.00	36.03
4691	OE1	GLU	A	582	-72.301	-10.677	54.938	1.00	43.19
4692	OE2	GLU	A	582	-73.505	-12.152	53.922	1.00	38.32
4693	C	GLU	A	582	-72.572	-9.434	57.292	1.00	27.50
4694	O	GLU	A	582	-72.824	-8.846	56.245	1.00	27.08
4695	N	ALA	A	583	-73.095	-9.061	58.459	1.00	27.71
4696	CA	ALA	A	583	-73.996	-7.923	58.549	1.00	27.63
4697	CB	ALA	A	583	-74.547	-7.792	59.958	1.00	28.04
4698	C	ALA	A	583	-73.307	-6.633	58.108	1.00	27.53
4699	O	ALA	A	583	-73.936	-5.748	57.521	1.00	27.90
4700	N	ALA	A	584	-72.016	-6.518	58.376	1.00	27.00
4701	CA	ALA	A	584	-71.264	-5.351	57.884	1.00	27.08
4702	CB	ALA	A	584	-69.876	-5.302	58.478	1.00	26.37
4703	C	ALA	A	584	-71.172	-5.376	56.361	1.00	27.19
4704	O	ALA	A	584	-71.324	-4.340	55.709	1.00	26.53
4705	N	ARG	A	585	-70.893	-6.554	55.805	1.00	27.50
4706	CA	ARG	A	585	-70.859	-6.715	54.360	1.00	29.16
4707	CB	ARG	A	585	-70.569	-8.169	53.976	1.00	29.32
4708	CG	ARG	A	585	-69.127	-8.522	54.150	1.00	29.55
4709	CD	ARG	A	585	-68.661	-9.684	53.298	1.00	31.77
4710	NE	ARG	A	585	-68.458	-10.853	54.118	1.00	34.87
4711	CZ	ARG	A	585	-67.285	-11.288	54.515	1.00	37.82
4712	NH1	ARG	A	585	-66.172	-10.666	54.124	1.00	39.98
4713	NH2	ARG	A	585	-67.224	-12.361	55.294	1.00	38.69
4714	C	ARG	A	585	-72.216	-6.297	53.793	1.00	29.98
4715	O	ARG	A	585	-72.286	-5.577	52.788	1.00	29.89
4716	N	GLN	A	586	-73.284	-6.689	54.485	1.00	30.37
4717	CA	GLN	A	586	-74.632	-6.362	54.045	1.00	31.66
4718	CB	GLN	A	586	-75.667	-7.060	54.928	1.00	31.84
4719	CG	GLN	A	586	-76.684	-7.899	54.172	1.00	36.59
4720	CD	GLN	A	586	-76.029	-9.048	53.461	1.00	40.20
4721	OE1	GLN	A	586	-75.172	-9.713	54.039	1.00	44.36
4722	NE2	GLN	A	586	-76.386	-9.264	52.195	1.00	39.89
4723	C	GLN	A	586	-74.840	-4.854	54.080	1.00	31.69
4724	O	GLN	A	586	-75.386	-4.275	53.146	1.00	31.81
4725	N	PHE	A	587	-74.422	-4.217	55.174	1.00	31.91
4726	CA	PHE	A	587	-74.562	-2.776	55.285	1.00	31.85
4727	CB	PHE	A	587	-74.022	-2.248	56.610	1.00	31.23
4728	CG	PHE	A	587	-74.724	-2.795	57.804	1.00	30.64
4729	CD1	PHE	A	587	-76.040	-3.231	57.711	1.00	29.81
4730	CE1	PHE	A	587	-76.699	-3.757	58.824	1.00	28.57
4731	CZ	PHE	A	587	-76.038	-3.835	60.035	1.00	28.65
4732	CE2	PHE	A	587	-74.716	-3.408	60.138	1.00	28.60
4733	CD2	PHE	A	587	-74.065	-2.895	59.026	1.00	28.50

**REPLACEMENT SHEET**  
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**FIGURE 3 CO**

A	B	C	D	E	F	G	H	I	J
4734	C	PHE	A	587	-73.799	-2.137	54.156	1.00	32.30
4735	O	PHE	A	587	-74.278	-1.195	53.544	1.00	32.07
4736	N	SER	A	588	-72.610	-2.646	53.862	1.00	33.09
4737	CA	SER	A	588	-71.858	-2.014	52.793	1.00	34.56
4738	CB	SER	A	588	-70.401	-2.484	52.698	1.00	33.97
4739	OG	SER	A	588	-70.287	-3.892	52.705	1.00	37.23
4740	C	SER	A	588	-72.625	-2.107	51.478	1.00	35.02
4741	O	SER	A	588	-72.614	-1.174	50.691	1.00	36.03
4742	N	LYS	A	589	-73.338	-3.205	51.259	1.00	35.40
4743	CA	LYS	A	589	-74.123	-3.325	50.030	1.00	35.48
4744	CB	LYS	A	589	-74.426	-4.792	49.693	1.00	35.59
4745	CG	LYS	A	589	-73.147	-5.576	49.328	1.00	36.84
4746	CD	LYS	A	589	-73.398	-6.653	48.284	1.00	38.33
4747	CE	LYS	A	589	-73.575	-8.012	48.911	1.00	39.71
4748	NZ	LYS	A	589	-75.002	-8.300	49.224	1.00	40.52
4749	C	LYS	A	589	-75.394	-2.480	50.042	1.00	35.12
4750	O	LYS	A	589	-76.239	-2.605	49.156	1.00	35.29
4751	N	MET	A	590	-75.537	-1.601	51.024	1.00	34.69
4752	CA	MET	A	590	-76.740	-0.767	51.048	1.00	33.79
4753	CB	MET	A	590	-77.262	-0.569	52.458	1.00	33.69
4754	CG	MET	A	590	-77.937	-1.755	53.037	1.00	31.72
4755	SD	MET	A	590	-78.280	-1.418	54.752	1.00	32.99
4756	CE	MET	A	590	-78.912	-3.103	55.209	1.00	29.27
4757	C	MET	A	590	-76.563	0.589	50.368	1.00	33.45
4758	O	MET	A	590	-77.516	1.365	50.296	1.00	33.67
4759	N	GLY	A	591	-75.348	0.889	49.918	1.00	32.59
4760	CA	GLY	A	591	-75.121	2.077	49.109	1.00	32.15
4761	C	GLY	A	591	-74.686	3.369	49.788	1.00	31.95
4762	O	GLY	A	591	-74.040	4.199	49.163	1.00	31.35
4763	N	PHE	A	592	-75.040	3.552	51.055	1.00	31.61
4764	CA	PHE	A	592	-74.670	4.767	51.752	1.00	31.68
4765	CB	PHE	A	592	-75.899	5.387	52.405	1.00	31.22
4766	CG	PHE	A	592	-76.687	4.424	53.230	1.00	31.65
4767	CD1	PHE	A	592	-77.873	3.889	52.750	1.00	31.62
4768	CE1	PHE	A	592	-78.608	3.008	53.518	1.00	30.54
4769	CZ	PHE	A	592	-78.142	2.636	54.752	1.00	33.03
4770	CE2	PHE	A	592	-76.941	3.148	55.237	1.00	30.57
4771	CD2	PHE	A	592	-76.232	4.032	54.486	1.00	30.78
4772	C	PHE	A	592	-73.544	4.549	52.774	1.00	31.58
4773	O	PHE	A	592	-73.324	5.367	53.667	1.00	31.89
4774	N	VAL	A	593	-72.813	3.462	52.620	1.00	31.73
4775	CA	VAL	A	593	-71.753	3.134	53.559	1.00	31.79
4776	CB	VAL	A	593	-72.012	1.740	54.213	1.00	32.37
4777	CG1	VAL	A	593	-70.799	1.260	54.986	1.00	32.98
4778	CG2	VAL	A	593	-73.242	1.798	55.119	1.00	31.20
4779	C	VAL	A	593	-70.410	3.166	52.854	1.00	31.65
4780	O	VAL	A	593	-70.260	2.579	51.800	1.00	31.88
4781	N	ASP	A	594	-69.436	3.875	53.418	1.00	31.26
4782	CA	ASP	A	594	-68.103	3.920	52.821	1.00	31.13
4783	CB	ASP	A	594	-67.373	5.178	53.268	1.00	30.73
4784	CG	ASP	A	594	-65.996	5.262	52.694	1.00	30.54

**REPLACEMENT SHEET**  
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**FIGURE 3 CP**

A	B	C	D	E	F	G	H	I	J
4785	OD1	ASP	A	594	-65.298	6.276	52.932	1.00	31.10
4786	OD2	ASP	A	594	-65.535	4.351	51.980	1.00	29.73
4787	C	ASP	A	594	-67.268	2.680	53.188	1.00	31.66
4788	O	ASP	A	594	-66.721	2.589	54.288	1.00	31.47
4789	N	ASN	A	595	-67.157	1.742	52.256	1.00	32.31
4790	CA	ASN	A	595	-66.447	0.486	52.481	1.00	33.15
4791	CB	ASN	A	595	-66.375	-0.314	51.186	1.00	33.65
4792	CG	ASN	A	595	-67.719	-0.824	50.775	1.00	38.94
4793	OD1	ASN	A	595	-68.738	-0.408	51.346	1.00	45.03
4794	ND2	ASN	A	595	-67.757	-1.729	49.792	1.00	42.29
4795	C	ASN	A	595	-65.056	0.630	53.059	1.00	32.62
4796	O	ASN	A	595	-64.505	-0.304	53.641	1.00	32.40
4797	N	LYS	A	596	-64.484	1.805	52.897	1.00	32.33
4798	CA	LYS	A	596	-63.135	2.024	53.333	1.00	32.38
4799	CB	LYS	A	596	-62.454	3.010	52.387	1.00	33.19
4800	CG	LYS	A	596	-62.424	2.514	50.961	1.00	35.40
4801	CD	LYS	A	596	-61.092	2.823	50.317	1.00	40.22
4802	CE	LYS	A	596	-60.853	4.328	50.276	1.00	42.88
4803	NZ	LYS	A	596	-61.988	4.993	49.567	1.00	44.77
4804	C	LYS	A	596	-63.064	2.516	54.763	1.00	31.21
4805	O	LYS	A	596	-61.985	2.590	55.318	1.00	31.59
4806	N	ARG	A	597	-64.217	2.841	55.338	1.00	29.75
4807	CA	ARG	A	597	-64.313	3.364	56.695	1.00	28.43
4808	CB	ARG	A	597	-64.513	4.888	56.671	1.00	28.70
4809	CG	ARG	A	597	-63.307	5.654	56.103	1.00	28.99
4810	CD	ARG	A	597	-63.447	7.156	56.153	1.00	28.51
4811	NE	ARG	A	597	-64.579	7.588	55.339	1.00	33.03
4812	CZ	ARG	A	597	-65.195	8.752	55.473	1.00	33.59
4813	NH1	ARG	A	597	-64.780	9.614	56.396	1.00	33.72
4814	NH2	ARG	A	597	-66.222	9.061	54.680	1.00	33.44
4815	C	ARG	A	597	-65.426	2.701	57.510	1.00	27.19
4816	O	ARG	A	597	-66.436	3.319	57.861	1.00	26.73
4817	N	ILE	A	598	-65.230	1.427	57.799	1.00	25.80
4818	CA	ILE	A	598	-66.137	0.688	58.639	1.00	24.49
4819	CB	ILE	A	598	-66.617	-0.567	57.916	1.00	24.74
4820	CG1	ILE	A	598	-67.481	-0.187	56.706	1.00	24.85
4821	CD1	ILE	A	598	-67.704	-1.335	55.743	1.00	24.67
4822	CG2	ILE	A	598	-67.430	-1.444	58.857	1.00	24.93
4823	C	ILE	A	598	-65.334	0.301	59.858	1.00	23.90
4824	O	ILE	A	598	-64.272	-0.279	59.744	1.00	23.23
4825	N	ALA	A	599	-65.827	0.664	61.027	1.00	23.45
4826	CA	ALA	A	599	-65.160	0.328	62.268	1.00	22.40
4827	CB	ALA	A	599	-64.747	1.585	63.000	1.00	21.96
4828	C	ALA	A	599	-66.121	-0.500	63.113	1.00	22.02
4829	O	ALA	A	599	-67.296	-0.687	62.746	1.00	22.71
4830	N	ILE	A	600	-65.622	-0.960	64.257	1.00	20.97
4831	CA	ILE	A	600	-66.371	-1.826	65.137	1.00	20.54
4832	CB	ILE	A	600	-66.192	-3.232	64.592	1.00	20.86
4833	CG1	ILE	A	600	-67.310	-4.181	65.027	1.00	22.29
4834	CD1	ILE	A	600	-66.944	-5.045	66.119	1.00	26.19
4835	CG2	ILE	A	600	-64.791	-3.770	64.878	1.00	18.98

**REPLACEMENT SHEET**  
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**FIGURE 3 CQ**

A	B	C D E	F	G	H	I	J
4836	C	ILE A 600	-65.854	-1.658	66.568	1.00	20.20
4837	O	ILE A 600	-64.666	-1.479	66.779	1.00	20.38
4838	N	TRP A 601	-66.752	-1.651	67.550	1.00	19.65
4839	CA	TRP A 601	-66.333	-1.504	68.922	1.00	19.05
4840	CB	TRP A 601	-66.154	-0.035	69.317	1.00	19.24
4841	CG	TRP A 601	-67.373	0.620	69.882	1.00	18.88
4842	CD1	TRP A 601	-68.465	1.053	69.185	1.00	19.07
4843	NE1	TRP A 601	-69.379	1.616	70.040	1.00	18.07
4844	CE2	TRP A 601	-68.879	1.575	71.310	1.00	17.52
4845	CD2	TRP A 601	-67.613	0.959	71.246	1.00	18.30
4846	CE3	TRP A 601	-66.896	0.777	72.436	1.00	19.10
4847	CZ3	TRP A 601	-67.446	1.212	73.619	1.00	17.74
4848	CH2	TRP A 601	-68.711	1.825	73.652	1.00	18.95
4849	CZ2	TRP A 601	-69.440	2.021	72.505	1.00	18.66
4850	C	TRP A 601	-67.344	-2.152	69.821	1.00	18.80
4851	O	TRP A 601	-68.487	-2.311	69.453	1.00	18.02
4852	N	GLY A 602	-66.890	-2.500	71.018	1.00	18.67
4853	CA	GLY A 602	-67.697	-3.197	71.990	1.00	18.53
4854	C	GLY A 602	-67.006	-3.251	73.334	1.00	18.13
4855	O	GLY A 602	-65.801	-3.056	73.416	1.00	17.50
4856	N	TRP A 603	-67.800	-3.507	74.368	1.00	19.13
4857	CA	TRP A 603	-67.376	-3.538	75.761	1.00	20.22
4858	CB	TRP A 603	-68.257	-2.564	76.553	1.00	21.35
4859	CG	TRP A 603	-67.685	-1.992	77.818	1.00	22.59
4860	CD1	TRP A 603	-67.293	-2.672	78.948	1.00	23.68
4861	NE1	TRP A 603	-66.830	-1.787	79.895	1.00	22.81
4862	CE2	TRP A 603	-66.929	-0.511	79.392	1.00	24.43
4863	CD2	TRP A 603	-67.460	-0.607	78.089	1.00	22.74
4864	CE3	TRP A 603	-67.653	0.571	77.361	1.00	23.54
4865	CZ3	TRP A 603	-67.305	1.788	77.942	1.00	22.90
4866	CH2	TRP A 603	-66.799	1.851	79.227	1.00	22.27
4867	CZ2	TRP A 603	-66.594	0.721	79.974	1.00	24.33
4868	C	TRP A 603	-67.653	-4.927	76.283	1.00	20.37
4869	O	TRP A 603	-68.703	-5.484	75.993	1.00	20.67
4870	N	SER A 604	-66.742	-5.484	77.076	1.00	20.51
4871	CA	SER A 604	-66.990	-6.793	77.672	1.00	20.36
4872	CB	SER A 604	-68.219	-6.726	78.567	1.00	19.86
4873	OG	SER A 604	-68.161	-7.730	79.566	1.00	20.74
4874	C	SER A 604	-67.154	-7.862	76.583	1.00	20.12
4875	O	SER A 604	-66.245	-8.073	75.784	1.00	20.16
4876	N	TYR A 605	-68.297	-8.533	76.540	1.00	20.10
4877	CA	TYR A 605	-68.518	-9.518	75.486	1.00	20.37
4878	CB	TYR A 605	-69.903	-10.184	75.584	1.00	20.14
4879	CG	TYR A 605	-69.951	-11.514	74.828	1.00	20.65
4880	CD1	TYR A 605	-69.848	-12.733	75.497	1.00	20.20
4881	CE1	TYR A 605	-69.875	-13.935	74.810	1.00	20.48
4882	CZ	TYR A 605	-69.989	-13.923	73.430	1.00	22.31
4883	OH	TYR A 605	-70.006	-15.103	72.698	1.00	19.08
4884	CE2	TYR A 605	-70.074	-12.714	72.759	1.00	20.96
4885	CD2	TYR A 605	-70.029	-11.537	73.447	1.00	19.30
4886	C	TYR A 605	-68.345	-8.832	74.135	1.00	20.06

**REPLACEMENT SHEET**  
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**FIGURE 3 CR**

A	B	C	D	E	F	G	H	I	J
4887	O	TYR	A	605	-67.813	-9.416	73.184	1.00	20.26
4888	N	GLY	A	606	-68.772	-7.576	74.063	1.00	19.47
4889	CA	GLY	A	606	-68.587	-6.807	72.859	1.00	19.08
4890	C	GLY	A	606	-67.126	-6.556	72.532	1.00	19.25
4891	O	GLY	A	606	-66.784	-6.410	71.375	1.00	19.90
4892	N	GLY	A	607	-66.263	-6.471	73.539	1.00	19.37
4893	CA	GLY	A	607	-64.846	-6.285	73.288	1.00	19.47
4894	C	GLY	A	607	-64.241	-7.557	72.736	1.00	19.64
4895	O	GLY	A	607	-63.327	-7.540	71.912	1.00	20.22
4896	N	TYR	A	608	-64.789	-8.677	73.180	1.00	19.76
4897	CA	TYR	A	608	-64.337	-9.971	72.733	1.00	19.82
4898	CB	TYR	A	608	-65.032	-11.051	73.555	1.00	20.02
4899	CG	TYR	A	608	-64.816	-12.453	73.029	1.00	19.56
4900	CD1	TYR	A	608	-65.881	-13.193	72.561	1.00	18.04
4901	CE1	TYR	A	608	-65.710	-14.481	72.069	1.00	18.41
4902	CZ	TYR	A	608	-64.480	-15.056	72.070	1.00	18.91
4903	OH	TYR	A	608	-64.386	-16.339	71.600	1.00	19.03
4904	CE2	TYR	A	608	-63.367	-14.352	72.543	1.00	18.99
4905	CD2	TYR	A	608	-63.544	-13.043	73.026	1.00	19.02
4906	C	TYR	A	608	-64.647	-10.165	71.268	1.00	19.33
4907	O	TYR	A	608	-63.785	-10.541	70.481	1.00	19.69
4908	N	VAL	A	609	-65.884	-9.891	70.899	1.00	19.79
4909	CA	VAL	A	609	-66.332	-10.058	69.509	1.00	19.80
4910	CB	VAL	A	609	-67.851	-9.966	69.441	1.00	19.50
4911	CG1	VAL	A	609	-68.363	-9.936	67.988	1.00	17.59
4912	CG2	VAL	A	609	-68.423	-11.129	70.204	1.00	18.52
4913	C	VAL	A	609	-65.681	-9.042	68.601	1.00	20.82
4914	O	VAL	A	609	-65.329	-9.340	67.455	1.00	21.36
4915	N	THR	A	610	-65.480	-7.837	69.121	1.00	20.90
4916	CA	THR	A	610	-64.789	-6.816	68.351	1.00	20.87
4917	CB	THR	A	610	-64.740	-5.495	69.167	1.00	20.91
4918	OG1	THR	A	610	-65.965	-4.785	68.971	1.00	22.30
4919	CG2	THR	A	610	-63.707	-4.544	68.630	1.00	21.50
4920	C	THR	A	610	-63.394	-7.313	68.007	1.00	20.98
4921	O	THR	A	610	-62.941	-7.194	66.860	1.00	22.27
4922	N	SER	A	611	-62.709	-7.876	68.996	1.00	20.87
4923	CA	SER	A	611	-61.348	-8.392	68.812	1.00	20.57
4924	CB	SER	A	611	-60.729	-8.720	70.176	1.00	20.33
4925	OG	SER	A	611	-60.765	-7.600	71.046	1.00	20.22
4926	C	SER	A	611	-61.326	-9.649	67.927	1.00	20.65
4927	O	SER	A	611	-60.479	-9.803	67.049	1.00	20.83
4928	N	MET	A	612	-62.238	-10.568	68.197	1.00	20.77
4929	CA	MET	A	612	-62.367	-11.751	67.370	1.00	21.12
4930	CB	MET	A	612	-63.511	-12.606	67.889	1.00	20.97
4931	CG	MET	A	612	-63.193	-13.164	69.283	1.00	21.19
4932	SD	MET	A	612	-61.798	-14.330	69.207	1.00	23.15
4933	CE	MET	A	612	-62.568	-15.751	68.577	1.00	22.70
4934	C	MET	A	612	-62.618	-11.310	65.931	1.00	21.34
4935	O	MET	A	612	-61.983	-11.787	64.992	1.00	20.82
4936	N	VAL	A	613	-63.527	-10.364	65.764	1.00	21.34
4937	CA	VAL	A	613	-63.797	-9.841	64.439	1.00	21.73

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**FIGURE 3 CS**

A	B	C	D	E	F	G	H	I	J
4938	CB	VAL	A	613	-64.908	-8.765	64.483	1.00	22.08
4939	CG1	VAL	A	613	-64.827	-7.843	63.272	1.00	20.14
4940	CG2	VAL	A	613	-66.283	-9.398	64.590	1.00	20.64
4941	C	VAL	A	613	-62.541	-9.189	63.833	1.00	22.48
4942	O	VAL	A	613	-62.172	-9.483	62.709	1.00	23.29
4943	N	LEU	A	614	-61.910	-8.262	64.559	1.00	22.81
4944	CA	LEU	A	614	-60.700	-7.582	64.071	1.00	22.75
4945	CB	LEU	A	614	-60.168	-6.632	65.127	1.00	22.12
4946	CG	LEU	A	614	-60.839	-5.259	65.192	1.00	22.33
4947	CD1	LEU	A	614	-60.855	-4.586	63.827	1.00	20.46
4948	CD2	LEU	A	614	-60.135	-4.379	66.227	1.00	19.62
4949	C	LEU	A	614	-59.576	-8.562	63.696	1.00	23.50
4950	O	LEU	A	614	-58.803	-8.318	62.767	1.00	22.74
4951	N	GLY	A	615	-59.469	-9.679	64.411	1.00	24.16
4952	CA	GLY	A	615	-58.389	-10.598	64.125	1.00	24.56
4953	C	GLY	A	615	-58.811	-11.723	63.204	1.00	25.13
4954	O	GLY	A	615	-58.144	-12.750	63.121	1.00	25.78
4955	N	SER	A	616	-59.914	-11.516	62.493	1.00	24.85
4956	CA	SER	A	616	-60.465	-12.555	61.625	1.00	25.43
4957	CB	SER	A	616	-61.980	-12.439	61.552	1.00	24.54
4958	OG	SER	A	616	-62.338	-11.405	60.653	1.00	25.35
4959	C	SER	A	616	-59.914	-12.534	60.201	1.00	26.05
4960	O	SER	A	616	-60.066	-13.505	59.475	1.00	26.76
4961	N	GLY	A	617	-59.319	-11.418	59.790	1.00	26.16
4962	CA	GLY	A	617	-58.770	-11.308	58.458	1.00	26.91
4963	C	GLY	A	617	-59.816	-11.051	57.390	1.00	27.84
4964	O	GLY	A	617	-59.518	-11.116	56.198	1.00	28.65
4965	N	SER	A	618	-61.041	-10.746	57.806	1.00	27.72
4966	CA	SER	A	618	-62.104	-10.495	56.854	1.00	27.42
4967	CB	SER	A	618	-63.412	-10.148	57.573	1.00	27.27
4968	OG	SER	A	618	-63.443	-8.776	57.938	1.00	26.02
4969	C	SER	A	618	-61.745	-9.365	55.905	1.00	27.44
4970	O	SER	A	618	-62.182	-9.359	54.775	1.00	28.42
4971	N	GLY	A	619	-60.958	-8.402	56.368	1.00	27.41
4972	CA	GLY	A	619	-60.626	-7.237	55.561	1.00	26.48
4973	C	GLY	A	619	-61.742	-6.213	55.513	1.00	25.98
4974	O	GLY	A	619	-61.645	-5.190	54.857	1.00	26.95
4975	N	VAL	A	620	-62.814	-6.471	56.237	1.00	25.53
4976	CA	VAL	A	620	-63.963	-5.596	56.199	1.00	24.51
4977	CB	VAL	A	620	-65.201	-6.328	56.718	1.00	24.57
4978	CG1	VAL	A	620	-66.337	-5.339	56.992	1.00	26.07
4979	CG2	VAL	A	620	-65.661	-7.401	55.700	1.00	23.73
4980	C	VAL	A	620	-63.745	-4.355	57.033	1.00	24.42
4981	O	VAL	A	620	-64.141	-3.242	56.652	1.00	24.86
4982	N	PHE	A	621	-63.075	-4.535	58.159	1.00	23.10
4983	CA	PHE	A	621	-62.945	-3.473	59.115	1.00	23.04
4984	CB	PHE	A	621	-63.239	-4.007	60.528	1.00	22.40
4985	CG	PHE	A	621	-64.635	-4.567	60.673	1.00	22.15
4986	CD1	PHE	A	621	-64.936	-5.855	60.234	1.00	21.19
4987	CE1	PHE	A	621	-66.213	-6.367	60.360	1.00	19.39
4988	CZ	PHE	A	621	-67.210	-5.607	60.905	1.00	18.20



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**FIGURE 3 CT**

A	B	C	D	E	F	G	H	I	J
4989	CE2	PHE	A	621	-66.930	-4.325	61.341	1.00	21.85
4990	CD2	PHE	A	621	-65.646	-3.810	61.220	1.00	20.24
4991	C	PHE	A	621	-61.605	-2.790	59.038	1.00	23.53
4992	O	PHE	A	621	-60.574	-3.434	58.902	1.00	23.71
4993	N	LYS	A	622	-61.625	-1.468	59.122	1.00	23.65
4994	CA	LYS	A	622	-60.373	-0.731	59.100	1.00	23.95
4995	CB	LYS	A	622	-60.603	0.675	58.550	1.00	23.87
4996	CG	LYS	A	622	-59.352	1.521	58.470	1.00	22.68
4997	CD	LYS	A	622	-59.710	2.933	57.967	1.00	24.66
4998	CE	LYS	A	622	-58.478	3.655	57.412	1.00	23.86
4999	NZ	LYS	A	622	-57.624	4.200	58.507	1.00	28.09
5000	C	LYS	A	622	-59.781	-0.632	60.505	1.00	23.70
5001	O	LYS	A	622	-58.566	-0.661	60.684	1.00	23.21
5002	N	CYS	A	623	-60.645	-0.501	61.495	1.00	23.54
5003	CA	CYS	A	623	-60.166	-0.293	62.857	1.00	24.57
5004	CB	CYS	A	623	-59.860	1.182	63.083	1.00	24.69
5005	SG	CYS	A	623	-61.320	2.194	62.772	1.00	30.15
5006	C	CYS	A	623	-61.243	-0.698	63.840	1.00	23.59
5007	O	CYS	A	623	-62.403	-0.866	63.466	1.00	23.61
5008	N	GLY	A	624	-60.862	-0.871	65.099	1.00	22.96
5009	CA	GLY	A	624	-61.840	-1.187	66.120	1.00	21.96
5010	C	GLY	A	624	-61.314	-0.848	67.495	1.00	20.56
5011	O	GLY	A	624	-60.132	-0.635	67.653	1.00	20.22
5012	N	ILE	A	625	-62.209	-0.813	68.475	1.00	19.69
5013	CA	ILE	A	625	-61.873	-0.530	69.852	1.00	18.81
5014	CB	ILE	A	625	-62.539	0.816	70.289	1.00	19.01
5015	CG1	ILE	A	625	-62.211	1.945	69.321	1.00	16.11
5016	CD1	ILE	A	625	-62.914	3.197	69.682	1.00	16.02
5017	CG2	ILE	A	625	-62.188	1.161	71.746	1.00	17.25
5018	C	ILE	A	625	-62.497	-1.616	70.714	1.00	18.34
5019	O	ILE	A	625	-63.681	-1.858	70.592	1.00	18.65
5020	N	ALA	A	626	-61.729	-2.222	71.610	1.00	17.80
5021	CA	ALA	A	626	-62.288	-3.197	72.543	1.00	17.73
5022	CB	ALA	A	626	-61.597	-4.520	72.443	1.00	17.61
5023	C	ALA	A	626	-62.125	-2.654	73.937	1.00	17.44
5024	O	ALA	A	626	-61.050	-2.290	74.309	1.00	17.61
5025	N	VAL	A	627	-63.204	-2.613	74.703	1.00	17.74
5026	CA	VAL	A	627	-63.141	-2.142	76.066	1.00	17.94
5027	CB	VAL	A	627	-64.189	-1.037	76.336	1.00	18.00
5028	CG1	VAL	A	627	-64.074	-0.544	77.788	1.00	16.19
5029	CG2	VAL	A	627	-63.990	0.113	75.368	1.00	16.44
5030	C	VAL	A	627	-63.416	-3.319	76.992	1.00	18.36
5031	O	VAL	A	627	-64.425	-3.988	76.833	1.00	19.01
5032	N	ALA	A	628	-62.528	-3.539	77.963	1.00	17.77
5033	CA	ALA	A	628	-62.620	-4.654	78.907	1.00	17.24
5034	CB	ALA	A	628	-63.491	-4.281	80.065	1.00	17.08
5035	C	ALA	A	628	-63.065	-5.997	78.288	1.00	17.61
5036	O	ALA	A	628	-63.979	-6.666	78.806	1.00	17.63
5037	N	PRO	A	629	-62.396	-6.409	77.213	1.00	17.78
5038	CA	PRO	A	629	-62.741	-7.655	76.511	1.00	18.00
5039	CB	PRO	A	629	-61.836	-7.606	75.267	1.00	17.83

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**FIGURE 3 CU**

A	B	C	D	E	F	G	H	I	J
5040	CG	PRO	A	629	-60.617	-6.764	75.745	1.00	18.80
5041	CD	PRO	A	629	-61.279	-5.681	76.557	1.00	18.05
5042	C	PRO	A	629	-62.392	-8.941	77.243	1.00	18.89
5043	O	PRO	A	629	-61.370	-9.040	77.919	1.00	19.33
5044	N	VAL	A	630	-63.226	-9.952	77.076	1.00	19.22
5045	CA	VAL	A	630	-62.841	-11.281	77.480	1.00	19.56
5046	CB	VAL	A	630	-64.083	-12.211	77.510	1.00	19.47
5047	CG1	VAL	A	630	-63.676	-13.691	77.445	1.00	19.05
5048	CG2	VAL	A	630	-64.900	-11.946	78.783	1.00	20.10
5049	C	VAL	A	630	-61.865	-11.663	76.369	1.00	20.33
5050	O	VAL	A	630	-62.067	-11.286	75.214	1.00	20.14
5051	N	SER	A	631	-60.775	-12.350	76.682	1.00	21.22
5052	CA	SER	A	631	-59.829	-12.710	75.615	1.00	20.43
5053	CB	SER	A	631	-58.464	-12.108	75.876	1.00	20.42
5054	OG	SER	A	631	-57.862	-12.676	77.020	1.00	18.57
5055	C	SER	A	631	-59.726	-14.227	75.476	1.00	21.06
5056	O	SER	A	631	-59.361	-14.750	74.420	1.00	20.72
5057	N	ARG	A	632	-59.999	-14.934	76.365	1.00	20.45
5058	CA	ARG	A	632	-60.150	-16.371	76.465	1.00	21.36
5059	CB	ARG	A	632	-58.829	-17.156	76.390	1.00	22.35
5060	CG	ARG	A	632	-58.075	-17.244	77.640	1.00	24.12
5061	CD	ARG	A	632	-57.443	-18.589	77.891	1.00	30.00
5062	NE	ARG	A	632	-56.637	-19.084	76.792	1.00	33.24
5063	CZ	ARG	A	632	-55.772	-20.100	76.890	1.00	34.46
5064	NH1	ARG	A	632	-55.082	-20.470	75.814	1.00	31.79
5065	NH2	ARG	A	632	-55.584	-20.728	78.063	1.00	33.30
5066	C	ARG	A	632	-61.047	-16.823	77.580	1.00	20.38
5067	O	ARG	A	632	-60.965	-16.333	78.714	1.00	20.35
5068	N	TRP	A	633	-61.905	-17.759	77.235	1.00	19.02
5069	CA	TRP	A	633	-62.980	-18.174	78.109	1.00	19.38
5070	CB	TRP	A	633	-63.983	-19.028	77.300	1.00	19.10
5071	CG	TRP	A	633	-64.675	-18.118	76.375	1.00	18.44
5072	CD1	TRP	A	633	-64.589	-18.087	75.002	1.00	16.62
5073	NE1	TRP	A	633	-65.343	-17.046	74.512	1.00	18.58
5074	CE2	TRP	A	633	-65.911	-16.369	75.565	1.00	17.12
5075	CD2	TRP	A	633	-65.503	-17.013	76.751	1.00	17.08
5076	CE3	TRP	A	633	-65.964	-16.515	77.978	1.00	15.56
5077	CZ3	TRP	A	633	-66.798	-15.409	77.981	1.00	17.56
5078	CH2	TRP	A	633	-67.182	-14.793	76.790	1.00	18.04
5079	CZ2	TRP	A	633	-66.741	-15.258	75.569	1.00	17.98
5080	C	TRP	A	633	-62.545	-18.770	79.450	1.00	20.13
5081	O	TRP	A	633	-63.253	-18.613	80.431	1.00	21.01
5082	N	GLU	A	634	-61.352	-19.353	79.527	1.00	20.46
5083	CA	GLU	A	634	-60.849	-19.887	80.802	1.00	21.33
5084	CB	GLU	A	634	-59.596	-20.758	80.564	1.00	21.47
5085	CG	GLU	A	634	-59.904	-22.204	80.183	1.00	23.57
5086	CD	GLU	A	634	-58.822	-22.837	79.320	1.00	27.27
5087	OE1	GLU	A	634	-58.809	-22.583	78.094	1.00	28.36
5088	OE2	GLU	A	634	-57.985	-23.598	79.860	1.00	30.14
5089	C	GLU	A	634	-60.526	-18.779	81.829	1.00	21.53
5090	O	GLU	A	634	-60.366	-19.037	83.021	1.00	20.99

**REPLACEMENT SHEET**  
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**FIGURE 3 CV**

A	B	C	D	E	F	G	H	I	J
5091	N	TYR	A	635	-60.419	-17.542	81.364	1.00	22.11
5092	CA	TYR	A	635	-60.123	-16.417	82.257	1.00	21.19
5093	CB	TYR	A	635	-59.517	-15.251	81.478	1.00	20.79
5094	CG	TYR	A	635	-58.133	-15.492	80.919	1.00	21.12
5095	CD1	TYR	A	635	-57.333	-16.509	81.406	1.00	20.15
5096	CE1	TYR	A	635	-56.071	-16.727	80.897	1.00	20.96
5097	CZ	TYR	A	635	-55.582	-15.910	79.895	1.00	21.25
5098	OH	TYR	A	635	-54.311	-16.139	79.382	1.00	21.05
5099	CE2	TYR	A	635	-56.357	-14.884	79.400	1.00	19.15
5100	CD2	TYR	A	635	-57.622	-14.683	79.906	1.00	21.12
5101	C	TYR	A	635	-61.397	-15.929	82.864	1.00	21.28
5102	O	TYR	A	635	-61.393	-15.214	83.879	1.00	22.46
5103	N	TYR	A	636	-62.514	-16.299	82.267	1.00	21.33
5104	CA	TYR	A	636	-63.761	-15.712	82.736	1.00	21.39
5105	CB	TYR	A	636	-64.659	-15.289	81.570	1.00	20.83
5106	CG	TYR	A	636	-65.723	-14.318	82.011	1.00	20.13
5107	CD1	TYR	A	636	-65.380	-13.145	82.657	1.00	20.12
5108	CE1	TYR	A	636	-66.347	-12.264	83.101	1.00	21.74
5109	CZ	TYR	A	636	-67.679	-12.553	82.900	1.00	22.24
5110	OH	TYR	A	636	-68.639	-11.678	83.346	1.00	22.21
5111	CE2	TYR	A	636	-68.049	-13.727	82.274	1.00	20.77
5112	CD2	TYR	A	636	-67.067	-14.604	81.839	1.00	21.02
5113	C	TYR	A	636	-64.475	-16.571	83.786	1.00	22.12
5114	O	TYR	A	636	-64.080	-17.732	84.031	1.00	22.47
5115	N	ASP	A	637	-65.493	-16.015	84.440	1.00	21.83
5116	CA	ASP	A	637	-66.088	-16.761	85.542	1.00	22.58
5117	CB	ASP	A	637	-66.937	-15.866	86.464	1.00	22.18
5118	CG	ASP	A	637	-68.218	-15.407	85.826	1.00	22.98
5119	OD1	ASP	A	637	-69.139	-16.233	85.659	1.00	22.99
5120	OD2	ASP	A	637	-68.426	-14.222	85.505	1.00	24.25
5121	C	ASP	A	637	-66.833	-18.031	85.108	1.00	22.89
5122	O	ASP	A	637	-67.375	-18.135	84.001	1.00	22.92
5123	N	SER	A	638	-66.876	-18.990	86.019	1.00	23.10
5124	CA	SER	A	638	-67.415	-20.308	85.718	1.00	23.30
5125	CB	SER	A	638	-67.152	-21.254	86.906	1.00	23.90
5126	OG	SER	A	638	-67.823	-20.801	88.071	1.00	23.09
5127	C	SER	A	638	-68.881	-20.339	85.373	1.00	23.53
5128	O	SER	A	638	-69.261	-21.000	84.421	1.00	24.64
5129	N	VAL	A	639	-69.734	-19.648	86.118	1.00	23.29
5130	CA	VAL	A	639	-71.145	-19.850	85.835	1.00	23.29
5131	CB	VAL	A	639	-72.089	-19.592	87.067	1.00	24.01
5132	CG1	VAL	A	639	-73.131	-18.523	86.842	1.00	22.27
5133	CG2	VAL	A	639	-71.293	-19.459	88.367	1.00	23.50
5134	C	VAL	A	639	-71.607	-19.215	84.543	1.00	23.93
5135	O	VAL	A	639	-72.505	-19.725	83.879	1.00	23.23
5136	N	TYR	A	640	-70.977	-18.108	84.162	1.00	23.68
5137	CA	TYR	A	640	-71.356	-17.513	82.911	1.00	23.15
5138	CB	TYR	A	640	-70.840	-16.083	82.815	1.00	22.59
5139	CG	TYR	A	640	-71.203	-15.375	81.518	1.00	21.34
5140	CD1	TYR	A	640	-72.327	-14.557	81.450	1.00	18.73
5141	CE1	TYR	A	640	-72.659	-13.891	80.285	1.00	19.07

**REPLACEMENT SHEET**  
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**FIGURE 3 CW**

A	B	C	D	E	F	G	H	I	J
5142	CZ	TYR	A	640	-71.859	-14.044	79.158	1.00	18.83
5143	OH	TYR	A	640	-72.182	-13.367	78.016	1.00	20.13
5144	CE2	TYR	A	640	-70.751	-14.853	79.181	1.00	18.02
5145	CD2	TYR	A	640	-70.416	-15.521	80.363	1.00	18.53
5146	C	TYR	A	640	-70.772	-18.361	81.788	1.00	23.14
5147	O	TYR	A	640	-71.481	-18.811	80.905	1.00	22.95
5148	N	THR	A	641	-69.461	-18.553	81.839	1.00	23.13
5149	CA	THR	A	641	-68.728	-19.262	80.805	1.00	22.36
5150	CB	THR	A	641	-67.247	-19.284	81.186	1.00	22.36
5151	OG1	THR	A	641	-66.793	-17.930	81.327	1.00	21.49
5152	CG2	THR	A	641	-66.390	-19.870	80.050	1.00	19.59
5153	C	THR	A	641	-69.206	-20.683	80.551	1.00	23.09
5154	O	THR	A	641	-69.448	-21.063	79.406	1.00	22.58
5155	N	GLU	A	642	-69.318	-21.476	81.614	1.00	23.11
5156	CA	GLU	A	642	-69.665	-22.884	81.449	1.00	23.47
5157	CB	GLU	A	642	-69.489	-23.619	82.775	1.00	23.64
5158	CG	GLU	A	642	-68.054	-23.600	83.260	1.00	21.61
5159	CD	GLU	A	642	-67.941	-24.019	84.701	1.00	23.47
5160	OE1	GLU	A	642	-68.965	-24.442	85.266	1.00	24.23
5161	OE2	GLU	A	642	-66.830	-23.920	85.270	1.00	24.27
5162	C	GLU	A	642	-71.061	-23.055	80.905	1.00	23.51
5163	O	GLU	A	642	-71.372	-24.027	80.202	1.00	24.20
5164	N	ARG	A	643	-71.909	-22.098	81.232	1.00	23.66
5165	CA	ARG	A	643	-73.260	-22.067	80.718	1.00	23.80
5166	CB	ARG	A	643	-73.905	-20.732	81.047	1.00	23.72
5167	CG	ARG	A	643	-75.391	-20.698	80.758	1.00	23.14
5168	CD	ARG	A	643	-76.036	-19.365	81.033	1.00	25.73
5169	NE	ARG	A	643	-75.932	-18.954	82.436	1.00	24.82
5170	CZ	ARG	A	643	-75.662	-17.718	82.842	1.00	22.95
5171	NH1	ARG	A	643	-75.437	-16.746	81.978	1.00	20.65
5172	NH2	ARG	A	643	-75.612	-17.454	84.131	1.00	24.06
5173	C	ARG	A	643	-73.305	-22.232	79.205	1.00	23.97
5174	O	ARG	A	643	-74.177	-22.902	78.674	1.00	24.18
5175	N	TYR	A	644	-72.391	-21.572	78.513	1.00	24.34
5176	CA	TYR	A	644	-72.379	-21.611	77.065	1.00	24.78
5177	CB	TYR	A	644	-72.177	-20.194	76.505	1.00	24.45
5178	CG	TYR	A	644	-73.057	-19.193	77.190	1.00	23.62
5179	CD1	TYR	A	644	-74.429	-19.230	77.035	1.00	23.88
5180	CE1	TYR	A	644	-75.231	-18.332	77.684	1.00	24.08
5181	CZ	TYR	A	644	-74.651	-17.399	78.527	1.00	24.09
5182	OH	TYR	A	644	-75.414	-16.507	79.204	1.00	23.00
5183	CE2	TYR	A	644	-73.302	-17.357	78.705	1.00	23.96
5184	CD2	TYR	A	644	-72.515	-18.255	78.047	1.00	24.31
5185	C	TYR	A	644	-71.260	-22.499	76.555	1.00	24.67
5186	O	TYR	A	644	-71.304	-22.959	75.429	1.00	24.91
5187	N	MET	A	645	-70.276	-22.764	77.393	1.00	24.31
5188	CA	MET	A	645	-69.072	-23.402	76.898	1.00	25.36
5189	CB	MET	A	645	-67.863	-22.477	77.129	1.00	25.32
5190	CG	MET	A	645	-67.842	-21.234	76.231	1.00	26.08
5191	SD	MET	A	645	-67.399	-21.710	74.533	1.00	29.71
5192	CE	MET	A	645	-65.606	-22.145	74.848	1.00	26.46

**REPLACEMENT SHEET**  
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**FIGURE 3 CX**

A	B	C	D	E	F	G	H	I	J
5193	C	MET	A	645	-68.769	-24.767	77.478	1.00	25.69
5194	O	MET	A	645	-67.845	-25.421	77.017	1.00	25.66
5195	N	GLY	A	646	-69.525	-25.189	78.486	1.00	26.08
5196	CA	GLY	A	646	-69.240	-26.447	79.143	1.00	27.31
5197	C	GLY	A	646	-67.941	-26.242	79.871	1.00	28.29
5198	O	GLY	A	646	-67.491	-25.105	80.023	1.00	29.19
5199	N	LEU	A	647	-67.324	-27.327	80.308	1.00	29.08
5200	CA	LEU	A	647	-66.032	-27.261	80.998	1.00	29.38
5201	CB	LEU	A	647	-65.865	-28.482	81.901	1.00	29.39
5202	CG	LEU	A	647	-66.459	-28.411	83.288	1.00	31.66
5203	CD1	LEU	A	647	-67.215	-27.097	83.510	1.00	31.73
5204	CD2	LEU	A	647	-67.322	-29.637	83.525	1.00	32.56
5205	C	LEU	A	647	-64.883	-27.323	80.036	1.00	29.07
5206	O	LEU	A	647	-64.983	-27.965	79.000	1.00	28.84
5207	N	PRO	A	648	-63.759	-26.734	80.429	1.00	28.93
5208	CA	PRO	A	648	-62.536	-26.787	79.629	1.00	29.00
5209	CB	PRO	A	648	-61.746	-25.562	80.107	1.00	28.58
5210	CG	PRO	A	648	-62.450	-25.070	81.350	1.00	28.32
5211	CD	PRO	A	648	-63.574	-25.987	81.683	1.00	28.10
5212	C	PRO	A	648	-61.694	-28.026	79.932	1.00	29.46
5213	O	PRO	A	648	-60.558	-27.881	80.357	1.00	29.04
5214	N	THR	A	649	-62.235	-29.217	79.732	1.00	30.75
5215	CA	THR	A	649	-61.468	-30.441	79.940	1.00	31.30
5216	CB	THR	A	649	-62.152	-31.321	80.963	1.00	31.86
5217	OG1	THR	A	649	-63.534	-31.470	80.599	1.00	31.50
5218	CG2	THR	A	649	-62.168	-30.636	82.359	1.00	30.73
5219	C	THR	A	649	-61.406	-31.192	78.637	1.00	32.53
5220	O	THR	A	649	-62.262	-30.995	77.768	1.00	31.95
5221	N	PRO	A	650	-60.396	-32.053	78.496	1.00	33.40
5222	CA	PRO	A	650	-60.216	-32.849	77.284	1.00	33.88
5223	CB	PRO	A	650	-59.140	-33.846	77.699	1.00	33.91
5224	CG	PRO	A	650	-58.350	-33.098	78.655	1.00	33.82
5225	CD	PRO	A	650	-59.337	-32.327	79.480	1.00	33.44
5226	C	PRO	A	650	-61.479	-33.573	76.908	1.00	34.49
5227	O	PRO	A	650	-61.748	-33.726	75.715	1.00	35.35
5228	N	GLU	A	651	-62.258	-33.996	77.899	1.00	35.30
5229	CA	GLU	A	651	-63.494	-34.729	77.628	1.00	36.20
5230	CB	GLU	A	651	-63.778	-35.767	78.720	1.00	36.74
5231	CG	GLU	A	651	-63.521	-35.287	80.136	1.00	39.79
5232	CD	GLU	A	651	-62.090	-35.514	80.572	1.00	42.71
5233	OE1	GLU	A	651	-61.517	-34.626	81.245	1.00	44.21
5234	OE2	GLU	A	651	-61.537	-36.586	80.237	1.00	44.81
5235	C	GLU	A	651	-64.723	-33.845	77.424	1.00	35.94
5236	O	GLU	A	651	-65.777	-34.311	76.948	1.00	36.46
5237	N	ASP	A	652	-64.645	-32.577	77.800	1.00	34.99
5238	CA	ASP	A	652	-65.807	-31.756	77.496	1.00	33.48
5239	CB	ASP	A	652	-66.374	-30.988	78.691	1.00	33.35
5240	CG	ASP	A	652	-67.736	-30.388	78.377	1.00	33.12
5241	OD1	ASP	A	652	-68.406	-29.842	79.273	1.00	34.89
5242	OD2	ASP	A	652	-68.230	-30.430	77.238	1.00	32.30
5243	C	ASP	A	652	-65.584	-30.861	76.302	1.00	32.82

**REPLACEMENT SHEET**  
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**FIGURE 3 CY**

A	B	C	D	E	F	G	H	I	J
5244	O	ASP	A	652	-65.827	-31.294	75.177	1.00	32.95
5245	N	ASN	A	653	-65.098	-29.634	76.527	1.00	31.69
5246	CA	ASN	A	653	-65.034	-28.649	75.448	1.00	30.86
5247	CB	ASN	A	653	-66.223	-27.682	75.585	1.00	30.19
5248	CG	ASN	A	653	-66.639	-27.043	74.251	1.00	28.23
5249	OD1	ASN	A	653	-66.427	-27.619	73.190	1.00	25.84
5250	ND2	ASN	A	653	-67.217	-25.839	74.312	1.00	24.02
5251	C	ASN	A	653	-63.709	-27.892	75.323	1.00	31.44
5252	O	ASN	A	653	-63.656	-26.819	74.711	1.00	32.23
5253	N	LEU	A	654	-62.644	-28.462	75.881	1.00	31.17
5254	CA	LEU	A	654	-61.321	-27.852	75.884	1.00	31.62
5255	CB	LEU	A	654	-60.271	-28.822	76.462	1.00	31.66
5256	CG	LEU	A	654	-58.828	-28.289	76.455	1.00	31.74
5257	CD1	LEU	A	654	-57.841	-29.275	77.064	1.00	30.38
5258	CD2	LEU	A	654	-58.739	-26.954	77.219	1.00	32.35
5259	C	LEU	A	654	-60.871	-27.367	74.515	1.00	31.37
5260	O	LEU	A	654	-60.409	-26.246	74.365	1.00	31.55
5261	N	ASP	A	655	-60.982	-28.223	73.513	1.00	31.42
5262	CA	ASP	A	655	-60.583	-27.836	72.175	1.00	31.41
5263	CB	ASP	A	655	-60.917	-28.930	71.141	1.00	31.61
5264	CG	ASP	A	655	-60.034	-30.181	71.290	1.00	33.09
5265	OD1	ASP	A	655	-58.976	-30.116	71.981	1.00	32.53
5266	OD2	ASP	A	655	-60.336	-31.282	70.762	1.00	35.23
5267	C	ASP	A	655	-61.210	-26.489	71.789	1.00	30.88
5268	O	ASP	A	655	-60.506	-25.592	71.318	1.00	31.25
5269	N	HIS	A	656	-62.506	-26.316	72.001	1.00	29.59
5270	CA	HIS	A	656	-63.091	-25.032	71.617	1.00	29.45
5271	CB	HIS	A	656	-64.605	-25.059	71.449	1.00	28.85
5272	CG	HIS	A	656	-65.125	-23.786	70.859	1.00	31.28
5273	ND1	HIS	A	656	-64.712	-23.322	69.624	1.00	31.33
5274	CE1	HIS	A	656	-65.277	-22.155	69.383	1.00	28.62
5275	NE2	HIS	A	656	-66.031	-21.836	70.419	1.00	29.04
5276	CD2	HIS	A	656	-65.936	-22.827	71.367	1.00	30.35
5277	C	HIS	A	656	-62.658	-23.841	72.496	1.00	28.95
5278	O	HIS	A	656	-62.541	-22.720	72.004	1.00	29.11
5279	N	TYR	A	657	-62.403	-24.075	73.778	1.00	28.25
5280	CA	TYR	A	657	-61.906	-23.001	74.630	1.00	27.73
5281	CB	TYR	A	657	-61.625	-23.496	76.052	1.00	27.06
5282	CG	TYR	A	657	-62.764	-23.445	77.047	1.00	24.81
5283	CD1	TYR	A	657	-62.891	-22.382	77.930	1.00	21.97
5284	CE1	TYR	A	657	-63.895	-22.348	78.863	1.00	19.46
5285	CZ	TYR	A	657	-64.801	-23.375	78.946	1.00	19.96
5286	OH	TYR	A	657	-65.821	-23.322	79.891	1.00	16.13
5287	CE2	TYR	A	657	-64.700	-24.449	78.088	1.00	20.07
5288	CD2	TYR	A	657	-63.675	-24.480	77.149	1.00	24.04
5289	C	TYR	A	657	-60.595	-22.545	74.056	1.00	28.50
5290	O	TYR	A	657	-60.312	-21.344	73.975	1.00	29.14
5291	N	ARG	A	658	-59.771	-23.505	73.658	1.00	29.19
5292	CA	ARG	A	658	-58.437	-23.163	73.181	1.00	30.10
5293	CB	ARG	A	658	-57.508	-24.378	73.186	1.00	30.86
5294	CG	ARG	A	658	-57.024	-24.776	74.559	1.00	34.28

**REPLACEMENT SHEET**  
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**FIGURE 3 CZ**

A	B	C	D	E	F	G	H	I	J
5295	CD	ARG	A	658	-55.835	-25.746	74.525	1.00	43.28
5296	NE	ARG	A	658	-56.163	-27.019	73.882	1.00	46.55
5297	CZ	ARG	A	658	-55.464	-28.133	74.076	1.00	49.48
5298	NH1	ARG	A	658	-54.409	-28.111	74.882	1.00	50.32
5299	NH2	ARG	A	658	-55.815	-29.263	73.476	1.00	49.35
5300	C	ARG	A	658	-58.464	-22.560	71.813	1.00	29.69
5301	O	ARG	A	658	-57.530	-21.890	71.418	1.00	30.15
5302	N	ASN	A	659	-59.553	-22.769	71.099	1.00	29.67
5303	CA	ASN	A	659	-59.633	-22.288	69.745	1.00	30.12
5304	CB	ASN	A	659	-60.348	-23.342	68.894	1.00	31.51
5305	CG	ASN	A	659	-59.577	-23.688	67.669	1.00	35.72
5306	OD1	ASN	A	659	-58.687	-24.537	67.721	1.00	39.51
5307	ND2	ASN	A	659	-59.876	-23.008	66.551	1.00	38.70
5308	C	ASN	A	659	-60.382	-20.972	69.594	1.00	28.84
5309	O	ASN	A	659	-60.415	-20.416	68.506	1.00	28.71
5310	N	SER	A	660	-61.018	-20.503	70.664	1.00	27.17
5311	CA	SER	A	660	-61.844	-19.298	70.588	1.00	25.44
5312	CB	SER	A	660	-63.198	-19.580	71.215	1.00	24.98
5313	OG	SER	A	660	-63.031	-20.172	72.497	1.00	25.82
5314	C	SER	A	660	-61.221	-18.076	71.274	1.00	24.97
5315	O	SER	A	660	-61.933	-17.153	71.656	1.00	25.56
5316	N	THR	A	661	-59.908	-18.068	71.442	1.00	23.39
5317	CA	THR	A	661	-59.247	-16.941	72.075	1.00	23.16
5318	CB	THR	A	661	-57.918	-17.385	72.698	1.00	23.16
5319	OG1	THR	A	661	-56.957	-17.511	71.654	1.00	23.43
5320	CG2	THR	A	661	-57.998	-18.785	73.324	1.00	21.93
5321	C	THR	A	661	-58.889	-15.813	71.113	1.00	22.62
5322	O	THR	A	661	-58.680	-16.036	69.913	1.00	22.28
5323	N	VAL	A	662	-58.754	-14.595	71.624	1.00	22.12
5324	CA	VAL	A	662	-58.285	-13.567	70.698	1.00	21.74
5325	CB	VAL	A	662	-58.738	-12.098	70.979	1.00	21.98
5326	CG1	VAL	A	662	-59.891	-12.035	71.964	1.00	21.08
5327	CG2	VAL	A	662	-57.565	-11.238	71.384	1.00	22.47
5328	C	VAL	A	662	-56.797	-13.692	70.511	1.00	20.40
5329	O	VAL	A	662	-56.296	-13.411	69.441	1.00	19.95
5330	N	MET	A	663	-56.087	-14.152	71.527	1.00	20.78
5331	CA	MET	A	663	-54.637	-14.288	71.382	1.00	20.68
5332	CB	MET	A	663	-53.975	-14.914	72.625	1.00	20.17
5333	CG	MET	A	663	-53.737	-13.912	73.760	1.00	19.42
5334	SD	MET	A	663	-55.332	-13.456	74.451	1.00	20.98
5335	CE	MET	A	663	-55.659	-14.841	75.532	1.00	17.84
5336	C	MET	A	663	-54.281	-15.069	70.119	1.00	21.08
5337	O	MET	A	663	-53.339	-14.719	69.432	1.00	20.76
5338	N	SER	A	664	-55.053	-16.107	69.804	1.00	21.53
5339	CA	SER	A	664	-54.755	-16.933	68.632	1.00	22.75
5340	CB	SER	A	664	-55.595	-18.205	68.612	1.00	22.81
5341	OG	SER	A	664	-56.965	-17.921	68.354	1.00	24.70
5342	C	SER	A	664	-54.902	-16.199	67.310	1.00	23.01
5343	O	SER	A	664	-54.343	-16.623	66.291	1.00	24.23
5344	N	ARG	A	665	-55.618	-15.088	67.312	1.00	22.62
5345	CA	ARG	A	665	-55.791	-14.335	66.088	1.00	22.32

**REPLACEMENT SHEET**  
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**FIGURE 3 DA**

A	B	C	D	E	F	G	H	I	J
5346	CB	ARG	A	665	-57.232	-13.903	65.980	1.00	23.29
5347	CG	ARG	A	665	-58.141	-15.116	66.007	1.00	23.73
5348	CD	ARG	A	665	-59.572	-14.808	66.178	1.00	26.81
5349	NE	ARG	A	665	-60.402	-15.948	65.794	1.00	27.93
5350	CZ	ARG	A	665	-61.511	-15.830	65.078	1.00	29.01
5351	NH1	ARG	A	665	-61.919	-14.625	64.656	1.00	24.12
5352	NH2	ARG	A	665	-62.211	-16.924	64.796	1.00	29.75
5353	C	ARG	A	665	-54.844	-13.159	65.964	1.00	22.41
5354	O	ARG	A	665	-54.975	-12.361	65.049	1.00	22.42
5355	N	ALA	A	666	-53.859	-13.094	66.855	1.00	21.95
5356	CA	ALA	A	666	-52.920	-11.974	66.912	1.00	23.05
5357	CB	ALA	A	666	-51.776	-12.291	67.873	1.00	22.46
5358	C	ALA	A	666	-52.370	-11.513	65.570	1.00	23.45
5359	O	ALA	A	666	-52.439	-10.321	65.232	1.00	23.40
5360	N	GLU	A	667	-51.844	-12.457	64.798	1.00	24.34
5361	CA	GLU	A	667	-51.210	-12.104	63.529	1.00	26.02
5362	CB	GLU	A	667	-50.722	-13.356	62.816	1.00	26.46
5363	CG	GLU	A	667	-50.092	-13.078	61.468	1.00	30.53
5364	CD	GLU	A	667	-48.626	-12.715	61.584	1.00	36.20
5365	OE1	GLU	A	667	-48.065	-12.186	60.598	1.00	38.89
5366	OE2	GLU	A	667	-48.027	-12.972	62.659	1.00	39.46
5367	C	GLU	A	667	-52.072	-11.259	62.580	1.00	25.57
5368	O	GLU	A	667	-51.566	-10.381	61.889	1.00	25.83
5369	N	ASN	A	668	-53.371	-11.517	62.561	1.00	25.39
5370	CA	ASN	A	668	-54.257	-10.785	61.668	1.00	25.55
5371	CB	ASN	A	668	-55.585	-11.516	61.495	1.00	25.59
5372	CG	ASN	A	668	-55.426	-12.848	60.788	1.00	27.16
5373	OD1	ASN	A	668	-54.536	-13.024	59.946	1.00	29.15
5374	ND2	ASN	A	668	-56.277	-13.797	61.135	1.00	26.82
5375	C	ASN	A	668	-54.503	-9.345	62.084	1.00	25.01
5376	O	ASN	A	668	-55.031	-8.562	61.298	1.00	25.54
5377	N	PHE	A	669	-54.142	-8.994	63.310	1.00	24.54
5378	CA	PHE	A	669	-54.315	-7.622	63.743	1.00	24.00
5379	CB	PHE	A	669	-54.077	-7.469	65.245	1.00	23.84
5380	CG	PHE	A	669	-55.266	-7.839	66.080	1.00	24.47
5381	CD1	PHE	A	669	-55.617	-9.168	66.257	1.00	22.23
5382	CE1	PHE	A	669	-56.680	-9.516	67.027	1.00	21.34
5383	CZ	PHE	A	669	-57.459	-8.528	67.625	1.00	22.55
5384	CE2	PHE	A	669	-57.132	-7.194	67.447	1.00	23.64
5385	CD2	PHE	A	669	-56.043	-6.854	66.680	1.00	24.33
5386	C	PHE	A	669	-53.377	-6.741	62.945	1.00	23.82
5387	O	PHE	A	669	-53.424	-5.536	63.067	1.00	22.53
5388	N	LYS	A	670	-52.517	-7.348	62.127	1.00	24.69
5389	CA	LYS	A	670	-51.615	-6.558	61.292	1.00	26.25
5390	CB	LYS	A	670	-50.587	-7.438	60.566	1.00	26.78
5391	CG	LYS	A	670	-49.279	-7.584	61.318	1.00	28.50
5392	CD	LYS	A	670	-48.530	-8.859	60.937	1.00	31.27
5393	CE	LYS	A	670	-47.245	-8.973	61.731	1.00	30.90
5394	NZ	LYS	A	670	-46.732	-10.369	61.735	1.00	34.92
5395	C	LYS	A	670	-52.409	-5.763	60.276	1.00	26.83
5396	O	LYS	A	670	-51.940	-4.740	59.777	1.00	27.69



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**FIGURE 3 DB**

A	B	C	D	E	F	G	H	I	J
5397	N	GLN	A	671	-53.620	-6.217	59.986	1.00	26.93
5398	CA	GLN	A	671	-54.414	-5.571	58.959	1.00	27.96
5399	CB	GLN	A	671	-55.258	-6.606	58.208	1.00	28.50
5400	CG	GLN	A	671	-54.473	-7.775	57.642	1.00	30.95
5401	CD	GLN	A	671	-55.378	-8.962	57.268	1.00	34.31
5402	OE1	GLN	A	671	-55.012	-10.121	57.502	1.00	36.61
5403	NE2	GLN	A	671	-56.532	-8.675	56.663	1.00	33.79
5404	C	GLN	A	671	-55.338	-4.472	59.471	1.00	27.43
5405	O	GLN	A	671	-56.012	-3.837	58.677	1.00	27.84
5406	N	VAL	A	672	-55.390	-4.239	60.775	1.00	26.34
5407	CA	VAL	A	672	-56.322	-3.242	61.267	1.00	25.27
5408	CB	VAL	A	672	-57.529	-3.897	61.964	1.00	25.36
5409	CG1	VAL	A	672	-58.253	-4.844	61.057	1.00	24.92
5410	CG2	VAL	A	672	-57.084	-4.616	63.233	1.00	25.04
5411	C	VAL	A	672	-55.722	-2.294	62.291	1.00	25.60
5412	O	VAL	A	672	-54.597	-2.452	62.760	1.00	24.76
5413	N	GLU	A	673	-56.510	-1.303	62.662	1.00	25.82
5414	CA	GLU	A	673	-56.108	-0.426	63.734	1.00	26.21
5415	CB	GLU	A	673	-56.278	1.027	63.307	1.00	26.66
5416	CG	GLU	A	673	-55.093	1.493	62.474	1.00	32.84
5417	CD	GLU	A	673	-55.499	2.115	61.157	1.00	38.58
5418	OE1	GLU	A	673	-56.193	3.152	61.183	1.00	39.09
5419	OE2	GLU	A	673	-55.135	1.543	60.091	1.00	43.37
5420	C	GLU	A	673	-56.906	-0.800	64.979	1.00	24.83
5421	O	GLU	A	673	-58.126	-0.930	64.925	1.00	24.87
5422	N	TYR	A	674	-56.208	-0.944	66.097	1.00	23.74
5423	CA	TYR	A	674	-56.796	-1.468	67.305	1.00	23.16
5424	CB	TYR	A	674	-56.128	-2.803	67.576	1.00	23.69
5425	CG	TYR	A	674	-56.730	-3.691	68.635	1.00	22.50
5426	CD1	TYR	A	674	-58.097	-3.782	68.818	1.00	21.88
5427	CE1	TYR	A	674	-58.626	-4.653	69.757	1.00	20.32
5428	CZ	TYR	A	674	-57.776	-5.446	70.510	1.00	20.63
5429	OH	TYR	A	674	-58.278	-6.317	71.470	1.00	19.71
5430	CE2	TYR	A	674	-56.419	-5.349	70.355	1.00	19.78
5431	CD2	TYR	A	674	-55.909	-4.494	69.419	1.00	22.86
5432	C	TYR	A	674	-56.521	-0.613	68.505	1.00	22.50
5433	O	TYR	A	674	-55.378	-0.217	68.761	1.00	22.76
5434	N	LEU	A	675	-57.572	-0.373	69.276	1.00	21.36
5435	CA	LEU	A	675	-57.442	0.346	70.520	1.00	20.60
5436	CB	LEU	A	675	-58.244	1.624	70.470	1.00	20.09
5437	CG	LEU	A	675	-58.453	2.411	71.752	1.00	21.82
5438	CD1	LEU	A	675	-57.128	2.565	72.554	1.00	21.00
5439	CD2	LEU	A	675	-59.092	3.773	71.432	1.00	17.43
5440	C	LEU	A	675	-57.943	-0.620	71.576	1.00	20.21
5441	O	LEU	A	675	-59.030	-1.156	71.458	1.00	19.19
5442	N	LEU	A	676	-57.110	-0.868	72.584	1.00	20.43
5443	CA	LEU	A	676	-57.418	-1.836	73.615	1.00	20.25
5444	CB	LEU	A	676	-56.354	-2.928	73.589	1.00	20.35
5445	CG	LEU	A	676	-56.403	-3.988	74.699	1.00	21.03
5446	CD1	LEU	A	676	-55.232	-4.949	74.527	1.00	20.07
5447	CD2	LEU	A	676	-57.710	-4.750	74.712	1.00	15.68

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**FIGURE 3 DC**

A	B	C D E	F	G	H	I	J
5448	C	LEU A 676	-57.443	-1.106	74.963	1.00	20.14
5449	O	LEU A 676	-56.462	-0.496	75.364	1.00	20.18
5450	N	ILE A 677	-58.565	-1.186	75.665	1.00	19.62
5451	CA	ILE A 677	-58.738	-0.410	76.869	1.00	18.78
5452	CB	ILE A 677	-59.777	0.703	76.578	1.00	19.27
5453	CG1	ILE A 677	-59.247	1.648	75.487	1.00	18.01
5454	CD1	ILE A 677	-60.282	2.598	74.961	1.00	19.97
5455	CG2	ILE A 677	-60.155	1.467	77.858	1.00	17.07
5456	C	ILE A 677	-59.247	-1.287	77.964	1.00	18.90
5457	O	ILE A 677	-60.118	-2.124	77.732	1.00	19.18
5458	N	HIS A 678	-58.729	-1.093	79.172	1.00	18.70
5459	CA	HIS A 678	-59.159	-1.919	80.307	1.00	18.53
5460	CB	HIS A 678	-58.382	-3.248	80.293	1.00	17.83
5461	CG	HIS A 678	-59.202	-4.430	80.703	1.00	16.75
5462	ND1	HIS A 678	-59.772	-4.538	81.950	1.00	16.89
5463	CE1	HIS A 678	-60.449	-5.670	82.028	1.00	15.28
5464	NE2	HIS A 678	-60.325	-6.305	80.878	1.00	17.63
5465	CD2	HIS A 678	-59.550	-5.552	80.031	1.00	13.04
5466	C	HIS A 678	-58.927	-1.205	81.638	1.00	18.25
5467	O	HIS A 678	-57.954	-0.495	81.797	1.00	18.44
5468	N	GLY A 679	-59.814	-1.413	82.599	1.00	18.83
5469	CA	GLY A 679	-59.635	-0.847	83.926	1.00	18.61
5470	C	GLY A 679	-58.778	-1.817	84.730	1.00	19.16
5471	O	GLY A 679	-59.034	-3.026	84.694	1.00	18.63
5472	N	THR A 680	-57.786	-1.307	85.462	1.00	19.32
5473	CA	THR A 680	-56.872	-2.181	86.193	1.00	20.63
5474	CB	THR A 680	-55.611	-1.449	86.652	1.00	20.52
5475	OG1	THR A 680	-55.945	-0.454	87.629	1.00	19.71
5476	CG2	THR A 680	-54.998	-0.692	85.487	1.00	19.76
5477	C	THR A 680	-57.503	-2.854	87.369	1.00	21.04
5478	O	THR A 680	-56.991	-3.857	87.844	1.00	21.57
5479	N	ALA A 681	-58.629	-2.324	87.828	1.00	21.61
5480	CA	ALA A 681	-59.307	-2.924	88.969	1.00	21.60
5481	CB	ALA A 681	-59.531	-1.881	90.106	1.00	21.79
5482	C	ALA A 681	-60.612	-3.564	88.560	1.00	21.42
5483	O	ALA A 681	-61.578	-3.609	89.346	1.00	22.68
5484	N	ASP A 682	-60.662	-4.057	87.331	1.00	20.59
5485	CA	ASP A 682	-61.843	-4.783	86.874	1.00	19.76
5486	CB	ASP A 682	-61.781	-4.986	85.369	1.00	19.79
5487	CG	ASP A 682	-63.096	-5.370	84.787	1.00	19.27
5488	OD1	ASP A 682	-63.365	-4.926	83.648	1.00	18.05
5489	OD2	ASP A 682	-63.924	-6.116	85.384	1.00	20.65
5490	C	ASP A 682	-61.849	-6.143	87.574	1.00	19.39
5491	O	ASP A 682	-60.920	-6.949	87.388	1.00	20.06
5492	N	ASP A 683	-62.873	-6.368	88.383	1.00	17.86
5493	CA	ASP A 683	-63.053	-7.579	89.154	1.00	18.48
5494	CB	ASP A 683	-63.826	-7.242	90.432	1.00	17.90
5495	CG	ASP A 683	-65.169	-6.613	90.128	1.00	18.77
5496	OD1	ASP A 683	-65.198	-5.405	89.794	1.00	18.95
5497	OD2	ASP A 683	-66.254	-7.240	90.165	1.00	19.04
5498	C	ASP A 683	-63.903	-8.579	88.399	1.00	18.58

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**FIGURE 3 DD**

A	B	C	D	E	F	G	H	I	J
5499	O	ASP	A	683	-64.084	-9.715	88.837	1.00	18.03
5500	N	ASN	A	684	-64.458	-8.115	87.288	1.00	19.43
5501	CA	ASN	A	684	-65.363	-8.906	86.477	1.00	20.04
5502	CB	ASN	A	684	-66.486	-8.023	85.949	1.00	20.24
5503	CG	ASN	A	684	-67.604	-8.818	85.340	1.00	19.66
5504	OD1	ASN	A	684	-68.750	-8.370	85.273	1.00	21.80
5505	ND2	ASN	A	684	-67.288	-9.999	84.902	1.00	20.70
5506	C	ASN	A	684	-64.596	-9.559	85.343	1.00	19.82
5507	O	ASN	A	684	-64.396	-10.765	85.359	1.00	19.74
5508	N	VAL	A	685	-64.199	-8.779	84.343	1.00	20.03
5509	CA	VAL	A	685	-63.270	-9.312	83.354	1.00	20.08
5510	CB	VAL	A	685	-63.752	-9.284	81.849	1.00	20.03
5511	CG1	VAL	A	685	-64.884	-8.373	81.618	1.00	20.16
5512	CG2	VAL	A	685	-62.583	-9.198	80.825	1.00	19.81
5513	C	VAL	A	685	-61.916	-8.742	83.711	1.00	20.09
5514	O	VAL	A	685	-61.650	-7.544	83.611	1.00	20.35
5515	N	HIS	A	686	-61.075	-9.631	84.213	1.00	20.12
5516	CA	HIS	A	686	-59.821	-9.218	84.812	1.00	19.79
5517	CB	HIS	A	686	-59.188	-10.425	85.511	1.00	19.73
5518	CG	HIS	A	686	-60.135	-11.064	86.471	1.00	20.36
5519	ND1	HIS	A	686	-60.197	-12.425	86.682	1.00	20.39
5520	CE1	HIS	A	686	-61.167	-12.685	87.546	1.00	22.42
5521	NE2	HIS	A	686	-61.730	-11.542	87.905	1.00	21.66
5522	CD2	HIS	A	686	-61.111	-10.514	87.238	1.00	19.34
5523	C	HIS	A	686	-58.934	-8.539	83.811	1.00	19.06
5524	O	HIS	A	686	-58.963	-8.878	82.636	1.00	19.35
5525	N	PHE	A	687	-58.200	-7.543	84.268	1.00	17.93
5526	CA	PHE	A	687	-57.250	-6.840	83.421	1.00	18.46
5527	CB	PHE	A	687	-56.450	-5.821	84.258	1.00	17.73
5528	CG	PHE	A	687	-55.409	-5.065	83.474	1.00	16.73
5529	CD1	PHE	A	687	-55.747	-3.918	82.766	1.00	17.46
5530	CE1	PHE	A	687	-54.778	-3.202	82.024	1.00	17.04
5531	CZ	PHE	A	687	-53.453	-3.649	82.030	1.00	18.40
5532	CE2	PHE	A	687	-53.115	-4.795	82.754	1.00	19.00
5533	CD2	PHE	A	687	-54.091	-5.498	83.457	1.00	16.43
5534	C	PHE	A	687	-56.320	-7.855	82.761	1.00	19.20
5535	O	PHE	A	687	-55.843	-7.643	81.629	1.00	20.05
5536	N	GLN	A	688	-56.056	-8.946	83.485	1.00	19.16
5537	CA	GLN	A	688	-55.316	-10.095	82.956	1.00	19.67
5538	CB	GLN	A	688	-55.745	-11.339	83.745	1.00	18.80
5539	CG	GLN	A	688	-55.330	-12.648	83.117	1.00	18.72
5540	CD	GLN	A	688	-56.070	-13.822	83.682	1.00	19.04
5541	OE1	GLN	A	688	-57.240	-13.709	84.032	1.00	21.89
5542	NE2	GLN	A	688	-55.409	-14.963	83.756	1.00	19.69
5543	C	GLN	A	688	-55.685	-10.360	81.510	1.00	20.02
5544	O	GLN	A	688	-54.869	-10.617	80.628	1.00	20.99
5545	N	GLN	A	689	-56.969	-10.303	81.295	1.00	20.02
5546	CA	GLN	A	689	-57.558	-10.662	80.022	1.00	21.16
5547	CB	GLN	A	689	-59.068	-10.641	80.242	1.00	20.04
5548	CG	GLN	A	689	-59.791	-11.314	79.236	1.00	24.17
5549	CD	GLN	A	689	-60.562	-12.518	79.697	1.00	22.03

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**FIGURE 3 DE**

A	B	C	D	E	F	G	H	I	J
5550	OE1	GLN	A	689	-60.625	-13.434	78.941	1.00	23.32
5551	NE2	GLN	A	689	-61.210	-12.487	80.877	1.00	18.54
5552	C	GLN	A	689	-57.040	-9.780	78.842	1.00	20.37
5553	O	GLN	A	689	-56.679	-10.282	77.769	1.00	19.90
5554	N	SER	A	690	-56.914	-8.477	79.070	1.00	20.07
5555	CA	SER	A	690	-56.309	-7.607	78.066	1.00	19.13
5556	CB	SER	A	690	-56.806	-6.175	78.221	1.00	19.29
5557	OG	SER	A	690	-58.131	-6.079	77.729	1.00	19.94
5558	C	SER	A	690	-54.778	-7.635	78.140	1.00	18.61
5559	O	SER	A	690	-54.082	-7.416	77.147	1.00	18.97
5560	N	ALA	A	691	-54.241	-7.901	79.309	1.00	17.44
5561	CA	ALA	A	691	-52.808	-8.011	79.391	1.00	18.16
5562	CB	ALA	A	691	-52.344	-8.171	80.835	1.00	17.77
5563	C	ALA	A	691	-52.340	-9.186	78.516	1.00	18.66
5564	O	ALA	A	691	-51.245	-9.157	77.964	1.00	18.93
5565	N	GLN	A	692	-53.179	-10.199	78.358	1.00	18.73
5566	CA	GLN	A	692	-52.806	-11.332	77.510	1.00	19.69
5567	CB	GLN	A	692	-53.576	-12.603	77.892	1.00	18.56
5568	CG	GLN	A	692	-53.201	-13.095	79.275	1.00	20.39
5569	CD	GLN	A	692	-51.780	-13.645	79.376	1.00	23.39
5570	OE1	GLN	A	692	-50.982	-13.499	78.466	1.00	25.31
5571	NE2	GLN	A	692	-51.474	-14.301	80.497	1.00	26.76
5572	C	GLN	A	692	-52.949	-11.005	76.036	1.00	20.10
5573	O	GLN	A	692	-52.187	-11.506	75.223	1.00	21.08
5574	N	ILE	A	693	-53.886	-10.130	75.692	1.00	20.67
5575	CA	ILE	A	693	-54.047	-9.709	74.305	1.00	20.84
5576	CB	ILE	A	693	-55.325	-8.836	74.151	1.00	20.74
5577	CG1	ILE	A	693	-56.601	-9.653	74.369	1.00	21.91
5578	CD1	ILE	A	693	-57.898	-8.813	74.261	1.00	20.81
5579	CG2	ILE	A	693	-55.353	-8.152	72.786	1.00	19.56
5580	C	ILE	A	693	-52.859	-8.863	73.881	1.00	21.49
5581	O	ILE	A	693	-52.344	-8.991	72.758	1.00	22.44
5582	N	SER	A	694	-52.441	-7.955	74.766	1.00	21.62
5583	CA	SER	A	694	-51.366	-7.025	74.430	1.00	20.99
5584	CB	SER	A	694	-51.237	-5.936	75.509	1.00	21.40
5585	OG	SER	A	694	-50.800	-6.466	76.767	1.00	21.44
5586	C	SER	A	694	-50.046	-7.776	74.245	1.00	20.98
5587	O	SER	A	694	-49.299	-7.497	73.318	1.00	20.54
5588	N	LYS	A	695	-49.788	-8.757	75.108	1.00	20.70
5589	CA	LYS	A	695	-48.558	-9.527	75.042	1.00	21.06
5590	CB	LYS	A	695	-48.450	-10.469	76.253	1.00	21.11
5591	CG	LYS	A	695	-47.228	-11.380	76.223	1.00	19.11
5592	CD	LYS	A	695	-46.817	-11.821	77.621	1.00	17.75
5593	CE	LYS	A	695	-47.969	-12.543	78.326	1.00	22.33
5594	NZ	LYS	A	695	-48.205	-13.939	77.821	1.00	21.64
5595	C	LYS	A	695	-48.480	-10.325	73.744	1.00	21.90
5596	O	LYS	A	695	-47.430	-10.384	73.090	1.00	22.18
5597	N	ALA	A	696	-49.605	-10.923	73.367	1.00	21.75
5598	CA	ALA	A	696	-49.674	-11.701	72.152	1.00	22.10
5599	CB	ALA	A	696	-51.026	-12.427	72.071	1.00	22.32
5600	C	ALA	A	696	-49.453	-10.814	70.915	1.00	22.60

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**FIGURE 3 DF**

A	B	C	D	E	F	G	H	I	J
5601	O	ALA	A	696	-48.814	-11.235	69.941	1.00	23.63
5602	N	LEU	A	697	-49.980	-9.596	70.945	1.00	21.62
5603	CA	LEU	A	697	-49.785	-8.680	69.833	1.00	21.54
5604	CB	LEU	A	697	-50.685	-7.455	69.976	1.00	20.89
5605	CG	LEU	A	697	-52.164	-7.826	69.864	1.00	20.86
5606	CD1	LEU	A	697	-53.084	-6.621	70.175	1.00	20.00
5607	CD2	LEU	A	697	-52.411	-8.383	68.457	1.00	19.20
5608	C	LEU	A	697	-48.343	-8.255	69.744	1.00	21.66
5609	O	LEU	A	697	-47.749	-8.208	68.671	1.00	22.68
5610	N	VAL	A	698	-47.772	-7.950	70.889	1.00	21.80
5611	CA	VAL	A	698	-46.386	-7.580	70.947	1.00	21.82
5612	CB	VAL	A	698	-45.956	-7.293	72.411	1.00	21.78
5613	CG1	VAL	A	698	-44.448	-7.058	72.492	1.00	19.00
5614	CG2	VAL	A	698	-46.718	-6.080	72.932	1.00	21.15
5615	C	VAL	A	698	-45.543	-8.695	70.373	1.00	22.31
5616	O	VAL	A	698	-44.636	-8.464	69.582	1.00	22.30
5617	N	ASP	A	699	-45.837	-9.912	70.793	1.00	23.20
5618	CA	ASP	A	699	-45.087	-11.066	70.341	1.00	24.23
5619	CB	ASP	A	699	-45.472	-12.288	71.163	1.00	24.60
5620	CG	ASP	A	699	-44.916	-12.227	72.576	1.00	28.11
5621	OD1	ASP	A	699	-45.394	-13.002	73.438	1.00	31.21
5622	OD2	ASP	A	699	-44.003	-11.428	72.913	1.00	29.15
5623	C	ASP	A	699	-45.139	-11.357	68.835	1.00	24.78
5624	O	ASP	A	699	-44.295	-12.089	68.344	1.00	25.40
5625	N	VAL	A	700	-46.113	-10.814	68.103	1.00	25.13
5626	CA	VAL	A	700	-46.132	-10.998	66.650	1.00	25.71
5627	CB	VAL	A	700	-47.475	-11.541	66.081	1.00	26.39
5628	CG1	VAL	A	700	-48.681	-10.797	66.679	1.00	26.60
5629	CG2	VAL	A	700	-47.501	-11.325	64.590	1.00	29.63
5630	C	VAL	A	700	-45.819	-9.673	65.980	1.00	25.45
5631	O	VAL	A	700	-45.959	-9.515	64.770	1.00	24.57
5632	N	GLY	A	701	-45.410	-8.696	66.779	1.00	25.84
5633	CA	GLY	A	701	-44.989	-7.427	66.221	1.00	25.28
5634	C	GLY	A	701	-46.071	-6.590	65.564	1.00	25.90
5635	O	GLY	A	701	-45.807	-5.945	64.545	1.00	26.61
5636	N	VAL	A	702	-47.284	-6.577	66.114	1.00	25.54
5637	CA	VAL	A	702	-48.278	-5.673	65.569	1.00	25.62
5638	CB	VAL	A	702	-49.634	-6.333	65.229	1.00	25.87
5639	CG1	VAL	A	702	-49.524	-7.843	65.210	1.00	27.50
5640	CG2	VAL	A	702	-50.733	-5.851	66.159	1.00	25.14
5641	C	VAL	A	702	-48.462	-4.476	66.487	1.00	25.24
5642	O	VAL	A	702	-48.465	-4.601	67.721	1.00	25.45
5643	N	ASP	A	703	-48.572	-3.298	65.897	1.00	25.10
5644	CA	ASP	A	703	-48.762	-2.146	66.727	1.00	25.76
5645	CB	ASP	A	703	-47.982	-0.927	66.251	1.00	26.50
5646	CG	ASP	A	703	-47.352	-0.205	67.422	1.00	29.15
5647	OD1	ASP	A	703	-47.844	0.867	67.752	1.00	27.65
5648	OD2	ASP	A	703	-46.386	-0.691	68.098	1.00	34.54
5649	C	ASP	A	703	-50.233	-1.833	66.921	1.00	25.15
5650	O	ASP	A	703	-51.064	-2.154	66.089	1.00	25.14
5651	N	PHE	A	704	-50.539	-1.205	68.041	1.00	24.41

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**FIGURE 3 DG**

A	B	C D E	F	G	H	I	J
5652	CA	PHE A 704	-51.918	-0.982	68.392	1.00	23.98
5653	CB	PHE A 704	-52.511	-2.289	68.902	1.00	23.42
5654	CG	PHE A 704	-51.854	-2.793	70.144	1.00	21.87
5655	CD1	PHE A 704	-52.307	-2.394	71.390	1.00	20.47
5656	CE1	PHE A 704	-51.689	-2.862	72.555	1.00	20.10
5657	CZ	PHE A 704	-50.622	-3.722	72.466	1.00	19.75
5658	CE2	PHE A 704	-50.158	-4.120	71.228	1.00	20.84
5659	CD2	PHE A 704	-50.769	-3.654	70.072	1.00	20.98
5660	C	PHE A 704	-51.944	0.064	69.481	1.00	23.79
5661	O	PHE A 704	-50.896	0.405	70.040	1.00	23.48
5662	N	GLN A 705	-53.135	0.573	69.776	1.00	23.59
5663	CA	GLN A 705	-53.276	1.629	70.780	1.00	23.77
5664	CB	GLN A 705	-54.343	2.639	70.368	1.00	24.73
5665	CG	GLN A 705	-54.119	3.225	69.034	1.00	27.99
5666	CD	GLN A 705	-52.835	3.950	69.005	1.00	34.84
5667	OE1	GLN A 705	-51.939	3.604	68.216	1.00	39.07
5668	NE2	GLN A 705	-52.703	4.957	69.874	1.00	34.12
5669	C	GLN A 705	-53.751	0.998	72.032	1.00	22.34
5670	O	GLN A 705	-54.492	0.039	71.989	1.00	22.88
5671	N	ALA A 706	-53.361	1.563	73.151	1.00	21.59
5672	CA	ALA A 706	-53.754	1.015	74.427	1.00	21.27
5673	CB	ALA A 706	-52.656	0.139	74.981	1.00	21.03
5674	C	ALA A 706	-54.076	2.096	75.417	1.00	21.31
5675	O	ALA A 706	-53.567	3.219	75.350	1.00	21.42
5676	N	MET A 707	-54.946	1.756	76.347	1.00	21.58
5677	CA	MET A 707	-55.193	2.650	77.456	1.00	21.80
5678	CB	MET A 707	-56.241	3.703	77.093	1.00	20.90
5679	CG	MET A 707	-56.551	4.628	78.247	1.00	23.88
5680	SD	MET A 707	-55.230	5.830	78.520	1.00	25.22
5681	CE	MET A 707	-55.541	6.235	80.200	1.00	31.39
5682	C	MET A 707	-55.670	1.827	78.638	1.00	21.25
5683	O	MET A 707	-56.672	1.152	78.542	1.00	22.25
5684	N	TRP A 708	-54.955	1.893	79.748	1.00	21.26
5685	CA	TRP A 708	-55.383	1.243	80.986	1.00	21.09
5686	CB	TRP A 708	-54.159	0.674	81.733	1.00	20.16
5687	CG	TRP A 708	-53.290	1.679	82.397	1.00	21.34
5688	CD1	TRP A 708	-53.524	2.319	83.592	1.00	20.72
5689	NE1	TRP A 708	-52.496	3.189	83.869	1.00	19.65
5690	CE2	TRP A 708	-51.559	3.112	82.873	1.00	20.47
5691	CD2	TRP A 708	-52.019	2.169	81.930	1.00	21.66
5692	CE3	TRP A 708	-51.227	1.907	80.809	1.00	19.72
5693	CZ3	TRP A 708	-50.039	2.560	80.675	1.00	20.65
5694	CH2	TRP A 708	-49.610	3.499	81.630	1.00	20.89
5695	CZ2	TRP A 708	-50.348	3.775	82.735	1.00	20.23
5696	C	TRP A 708	-56.063	2.326	81.826	1.00	20.98
5697	O	TRP A 708	-55.741	3.488	81.679	1.00	21.48
5698	N	TYR A 709	-57.015	1.973	82.678	1.00	20.79
5699	CA	TYR A 709	-57.582	2.972	83.596	1.00	19.76
5700	CB	TYR A 709	-59.065	3.279	83.313	1.00	19.02
5701	CG	TYR A 709	-59.226	4.211	82.143	1.00	17.81
5702	CD1	TYR A 709	-59.054	5.604	82.282	1.00	15.94

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FIGURE 3 DH

A	B	C	D	E	F	G	H	I	J
5703	CE1	TYR	A	709	-59.196	6.453	81.179	1.00	16.02
5704	CZ	TYR	A	709	-59.480	5.894	79.914	1.00	18.36
5705	OH	TYR	A	709	-59.627	6.670	78.773	1.00	19.00
5706	CE2	TYR	A	709	-59.626	4.525	79.768	1.00	15.11
5707	CD2	TYR	A	709	-59.502	3.699	80.871	1.00	16.48
5708	C	TYR	A	709	-57.340	2.570	85.042	1.00	19.87
5709	O	TYR	A	709	-57.962	1.669	85.575	1.00	19.67
5710	N	THR	A	710	-56.400	3.253	85.664	1.00	20.79
5711	CA	THR	A	710	-56.017	2.973	87.025	1.00	21.00
5712	CB	THR	A	710	-55.062	4.049	87.479	1.00	21.32
5713	OG1	THR	A	710	-53.905	4.050	86.629	1.00	23.26
5714	CG2	THR	A	710	-54.539	3.759	88.852	1.00	20.93
5715	C	THR	A	710	-57.225	2.988	87.934	1.00	21.30
5716	O	THR	A	710	-57.931	3.991	87.991	1.00	21.23
5717	N	ASP	A	711	-57.437	1.863	88.619	1.00	20.65
5718	CA	ASP	A	711	-58.451	1.681	89.660	1.00	21.12
5719	CB	ASP	A	711	-58.255	2.651	90.843	1.00	20.66
5720	CG	ASP	A	711	-56.972	2.389	91.609	1.00	22.62
5721	OD1	ASP	A	711	-56.480	3.311	92.335	1.00	23.36
5722	OD2	ASP	A	711	-56.362	1.295	91.533	1.00	23.12
5723	C	ASP	A	711	-59.887	1.669	89.176	1.00	21.05
5724	O	ASP	A	711	-60.828	1.591	89.969	1.00	21.25
5725	N	GLU	A	712	-60.071	1.733	87.872	1.00	21.35
5726	CA	GLU	A	712	-61.418	1.654	87.347	1.00	21.45
5727	CB	GLU	A	712	-61.489	2.370	86.016	1.00	21.52
5728	CG	GLU	A	712	-61.321	3.874	86.177	1.00	23.03
5729	CD	GLU	A	712	-62.496	4.500	86.923	1.00	25.84
5730	OE1	GLU	A	712	-62.284	5.209	87.913	1.00	28.25
5731	OE2	GLU	A	712	-63.650	4.274	86.528	1.00	29.59
5732	C	GLU	A	712	-61.897	0.200	87.255	1.00	21.45
5733	O	GLU	A	712	-61.091	-0.707	87.054	1.00	21.45
5734	N	ASP	A	713	-63.196	-0.044	87.448	1.00	21.48
5735	CA	ASP	A	713	-63.659	-1.418	87.327	1.00	21.88
5736	CB	ASP	A	713	-64.536	-1.860	88.504	1.00	21.50
5737	CG	ASP	A	713	-65.855	-1.156	88.557	1.00	21.33
5738	OD1	ASP	A	713	-66.584	-1.385	89.538	1.00	22.46
5739	OD2	ASP	A	713	-66.263	-0.376	87.685	1.00	22.10
5740	C	ASP	A	713	-64.265	-1.709	85.963	1.00	22.03
5741	O	ASP	A	713	-63.952	-1.033	85.013	1.00	22.71
5742	N	HIS	A	714	-65.111	-2.719	85.858	1.00	22.81
5743	CA	HIS	A	714	-65.653	-3.106	84.562	1.00	23.58
5744	CB	HIS	A	714	-66.471	-4.389	84.669	1.00	23.35
5745	CG	HIS	A	714	-66.651	-5.079	83.359	1.00	23.79
5746	ND1	HIS	A	714	-65.593	-5.358	82.523	1.00	25.47
5747	CE1	HIS	A	714	-66.042	-5.947	81.429	1.00	23.28
5748	NE2	HIS	A	714	-67.349	-6.067	81.533	1.00	23.63
5749	CD2	HIS	A	714	-67.758	-5.520	82.723	1.00	23.05
5750	C	HIS	A	714	-66.496	-2.034	83.892	1.00	24.39
5751	O	HIS	A	714	-66.584	-1.985	82.668	1.00	24.97
5752	N	GLY	A	715	-67.112	-1.165	84.686	1.00	24.59
5753	CA	GLY	A	715	-67.922	-0.113	84.108	1.00	23.89

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**FIGURE 3 DI**

A	B	C D E	F	G	H	I	J
5754	C	GLY A 715	-67.139	1.133	83.718	1.00	23.81
5755	O	GLY A 715	-67.711	2.028	83.102	1.00	23.91
5756	N	ILE A 716	-65.844	1.189	84.044	1.00	23.22
5757	CA	ILE A 716	-65.056	2.404	83.824	1.00	23.24
5758	CB	ILE A 716	-64.378	2.441	82.452	1.00	22.71
5759	CG1	ILE A 716	-63.681	1.101	82.158	1.00	22.49
5760	CD1	ILE A 716	-62.688	1.176	81.007	1.00	20.92
5761	CG2	ILE A 716	-63.382	3.573	82.430	1.00	19.75
5762	C	ILE A 716	-65.990	3.594	83.988	1.00	24.33
5763	O	ILE A 716	-66.240	4.386	83.065	1.00	23.79
5764	N	ALA A 717	-66.500	3.740	85.193	1.00	25.20
5765	CA	ALA A 717	-67.605	4.648	85.317	1.00	26.42
5766	CB	ALA A 717	-68.916	3.843	85.641	1.00	25.98
5767	C	ALA A 717	-67.417	5.843	86.239	1.00	26.81
5768	O	ALA A 717	-68.328	6.653	86.343	1.00	28.31
5769	N	SER A 718	-66.283	5.967	86.923	1.00	26.76
5770	CA	SER A 718	-66.050	7.219	87.640	1.00	26.89
5771	CB	SER A 718	-64.600	7.418	88.008	1.00	25.63
5772	OG	SER A 718	-64.179	6.429	88.906	1.00	31.72
5773	C	SER A 718	-66.360	8.302	86.634	1.00	26.49
5774	O	SER A 718	-66.133	8.132	85.437	1.00	26.34
5775	N	SER A 719	-66.824	9.433	87.124	1.00	26.34
5776	CA	SER A 719	-67.100	10.557	86.253	1.00	26.36
5777	CB	SER A 719	-67.604	11.729	87.091	1.00	26.02
5778	OG	SER A 719	-67.345	12.944	86.446	1.00	28.60
5779	C	SER A 719	-65.895	10.944	85.377	1.00	25.43
5780	O	SER A 719	-66.030	11.113	84.188	1.00	24.62
5781	N	THR A 720	-64.703	11.052	85.943	1.00	25.44
5782	CA	THR A 720	-63.586	11.512	85.119	1.00	24.70
5783	CB	THR A 720	-62.452	11.979	85.988	1.00	25.07
5784	OG1	THR A 720	-62.117	10.936	86.921	1.00	25.60
5785	CG2	THR A 720	-62.931	13.171	86.835	1.00	24.75
5786	C	THR A 720	-63.076	10.478	84.137	1.00	24.15
5787	O	THR A 720	-62.635	10.828	83.042	1.00	23.77
5788	N	ALA A 721	-63.142	9.207	84.525	1.00	23.57
5789	CA	ALA A 721	-62.688	8.130	83.653	1.00	23.35
5790	CB	ALA A 721	-62.489	6.820	84.446	1.00	23.36
5791	C	ALA A 721	-63.684	7.926	82.532	1.00	22.88
5792	O	ALA A 721	-63.303	7.651	81.407	1.00	22.47
5793	N	HIS A 722	-64.966	8.075	82.855	1.00	23.03
5794	CA	HIS A 722	-66.029	7.955	81.872	1.00	22.95
5795	CB	HIS A 722	-67.403	8.167	82.521	1.00	22.90
5796	CG	HIS A 722	-68.525	8.292	81.527	1.00	23.87
5797	ND1	HIS A 722	-68.953	7.237	80.747	1.00	24.64
5798	CE1	HIS A 722	-69.931	7.639	79.956	1.00	24.39
5799	NE2	HIS A 722	-70.157	8.917	80.197	1.00	26.13
5800	CD2	HIS A 722	-69.291	9.351	81.174	1.00	23.85
5801	C	HIS A 722	-65.794	9.003	80.796	1.00	23.22
5802	O	HIS A 722	-65.777	8.709	79.609	1.00	22.74
5803	N	GLN A 723	-65.563	10.238	81.221	1.00	23.31
5804	CA	GLN A 723	-65.297	11.297	80.252	1.00	23.21



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**FIGURE 3 DJ**

A	B	C	D	E	F	G	H	I	J
5805	CB	GLN	A	723	-65.205	12.637	80.984	1.00	23.00
5806	CG	GLN	A	723	-66.493	12.899	81.716	1.00	24.49
5807	CD	GLN	A	723	-66.503	14.184	82.467	1.00	26.80
5808	OE1	GLN	A	723	-66.444	15.263	81.862	1.00	31.36
5809	NE2	GLN	A	723	-66.617	14.096	83.786	1.00	26.57
5810	C	GLN	A	723	-64.028	11.036	79.477	1.00	22.62
5811	O	GLN	A	723	-63.955	11.294	78.274	1.00	23.70
5812	N	HIS	A	724	-63.014	10.541	80.168	1.00	21.60
5813	CA	HIS	A	724	-61.728	10.320	79.535	1.00	21.22
5814	CB	HIS	A	724	-60.666	9.958	80.594	1.00	20.83
5815	CG	HIS	A	724	-59.267	10.092	80.087	1.00	22.39
5816	ND1	HIS	A	724	-58.678	9.140	79.285	1.00	23.74
5817	OE1	HIS	A	724	-57.464	9.546	78.950	1.00	26.52
5818	NE2	HIS	A	724	-57.260	10.740	79.480	1.00	24.52
5819	CD2	HIS	A	724	-58.375	11.108	80.188	1.00	22.62
5820	C	HIS	A	724	-61.779	9.241	78.445	1.00	20.97
5821	O	HIS	A	724	-61.273	9.432	77.325	1.00	21.47
5822	N	ILE	A	725	-62.397	8.108	78.755	1.00	20.53
5823	CA	ILE	A	725	-62.431	7.025	77.783	1.00	20.56
5824	CB	ILE	A	725	-62.876	5.676	78.432	1.00	20.64
5825	CG1	ILE	A	725	-62.653	4.516	77.443	1.00	20.06
5826	CD1	ILE	A	725	-63.234	3.188	77.884	1.00	18.35
5827	CG2	ILE	A	725	-64.305	5.762	79.037	1.00	20.09
5828	C	ILE	A	725	-63.197	7.402	76.512	1.00	20.84
5829	O	ILE	A	725	-62.681	7.234	75.390	1.00	20.98
5830	N	TYR	A	726	-64.388	7.977	76.667	1.00	20.87
5831	CA	TYR	A	726	-65.165	8.387	75.492	1.00	21.00
5832	CB	TYR	A	726	-66.601	8.782	75.872	1.00	21.09
5833	CG	TYR	A	726	-67.449	7.551	76.078	1.00	19.03
5834	CD1	TYR	A	726	-67.720	7.098	77.347	1.00	18.31
5835	OE1	TYR	A	726	-68.452	5.972	77.540	1.00	20.53
5836	CZ	TYR	A	726	-68.928	5.264	76.465	1.00	19.61
5837	OH	TYR	A	726	-69.635	4.121	76.725	1.00	22.52
5838	CE2	TYR	A	726	-68.674	5.678	75.180	1.00	17.61
5839	CD2	TYR	A	726	-67.905	6.809	74.999	1.00	17.82
5840	C	TYR	A	726	-64.454	9.461	74.696	1.00	21.37
5841	O	TYR	A	726	-64.534	9.483	73.474	1.00	21.81
5842	N	THR	A	727	-63.740	10.344	75.384	1.00	21.83
5843	CA	THR	A	727	-62.950	11.345	74.681	1.00	22.39
5844	CB	THR	A	727	-62.358	12.384	75.669	1.00	23.07
5845	OG1	THR	A	727	-63.404	13.181	76.228	1.00	23.65
5846	CG2	THR	A	727	-61.481	13.403	74.937	1.00	21.85
5847	C	THR	A	727	-61.823	10.644	73.941	1.00	21.83
5848	O	THR	A	727	-61.610	10.899	72.768	1.00	21.98
5849	N	HIS	A	728	-61.088	9.762	74.623	1.00	22.21
5850	CA	HIS	A	728	-60.003	9.012	73.950	1.00	21.80
5851	CB	HIS	A	728	-59.321	8.026	74.910	1.00	21.58
5852	CG	HIS	A	728	-57.937	7.619	74.486	1.00	21.56
5853	ND1	HIS	A	728	-56.913	8.526	74.327	1.00	21.82
5854	OE1	HIS	A	728	-55.815	7.887	73.959	1.00	23.13
5855	NE2	HIS	A	728	-56.093	6.600	73.864	1.00	21.39

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FIGURE 3 DL

A	B	C	D	E	F	G	H	I	J
5907	CE	LYS	A	734	-63.253	14.336	65.441	1.00	36.19
5908	NZ	LYS	A	734	-64.229	15.456	65.549	1.00	38.15
5909	C	LYS	A	734	-60.805	10.206	63.284	1.00	31.10
5910	O	LYS	A	734	-60.723	10.519	62.107	1.00	31.08
5911	N	GLN	A	735	-59.755	9.775	63.982	1.00	31.91
5912	CA	GLN	A	735	-58.454	9.590	63.332	1.00	33.34
5913	CB	GLN	A	735	-57.369	9.179	64.333	1.00	33.56
5914	CG	GLN	A	735	-56.025	8.750	63.691	1.00	37.28
5915	CD	GLN	A	735	-56.024	7.323	63.086	1.00	42.41
5916	OE1	GLN	A	735	-55.765	7.153	61.885	1.00	44.60
5917	NE2	GLN	A	735	-56.289	6.296	63.918	1.00	43.33
5918	C	GLN	A	735	-58.567	8.521	62.252	1.00	33.22
5919	O	GLN	A	735	-58.120	8.721	61.128	1.00	33.15
5920	N	CYS	A	736	-59.170	7.389	62.610	1.00	33.22
5921	CA	CYS	A	736	-59.358	6.263	61.693	1.00	33.79
5922	CB	CYS	A	736	-59.968	5.072	62.462	1.00	33.73
5923	SG	CYS	A	736	-60.727	3.713	61.519	1.00	37.10
5924	C	CYS	A	736	-60.219	6.635	60.476	1.00	33.58
5925	O	CYS	A	736	-59.961	6.173	59.368	1.00	33.62
5926	N	PHE	A	737	-61.224	7.477	60.704	1.00	33.49
5927	CA	PHE	A	737	-62.175	7.913	59.679	1.00	33.66
5928	CB	PHE	A	737	-63.575	8.112	60.294	1.00	32.87
5929	CG	PHE	A	737	-64.301	6.823	60.608	1.00	31.36
5930	CD1	PHE	A	737	-63.816	5.602	60.159	1.00	30.51
5931	CE1	PHE	A	737	-64.499	4.414	60.429	1.00	28.51
5932	CZ	PHE	A	737	-65.662	4.441	61.166	1.00	27.07
5933	CE2	PHE	A	737	-66.154	5.651	61.625	1.00	28.45
5934	CD2	PHE	A	737	-65.477	6.834	61.340	1.00	29.14
5935	C	PHE	A	737	-61.737	9.201	58.963	1.00	34.35
5936	O	PHE	A	737	-62.460	9.741	58.130	1.00	33.54
5937	N	SER	A	738	-60.544	9.685	59.283	1.00	35.95
5938	CA	SER	A	738	-60.044	10.916	58.672	1.00	37.76
5939	CB	SER	A	738	-59.792	10.712	57.171	1.00	37.83
5940	OG	SER	A	738	-58.712	9.830	56.951	1.00	38.28
5941	C	SER	A	738	-61.015	12.086	58.894	1.00	38.68
5942	O	SER	A	738	-61.259	12.878	57.988	1.00	38.51
5943	N	LEU	A	739	-61.568	12.171	60.100	1.00	40.18
5944	CA	LEU	A	739	-62.470	13.246	60.482	1.00	41.75
5945	CB	LEU	A	739	-63.629	12.697	61.306	1.00	41.38
5946	CG	LEU	A	739	-64.564	11.738	60.567	1.00	40.93
5947	CD1	LEU	A	739	-65.640	11.206	61.492	1.00	37.09
5948	CD2	LEU	A	739	-65.168	12.452	59.354	1.00	41.52
5949	C	LEU	A	739	-61.706	14.237	61.331	1.00	43.20
5950	O	LEU	A	739	-61.526	14.013	62.518	1.00	44.19
5951	N	PRO	A	740	-61.229	15.315	60.726	1.00	44.56
5952	CA	PRO	A	740	-60.459	16.341	61.441	1.00	45.43
5953	CB	PRO	A	740	-59.950	17.229	60.306	1.00	45.59
5954	CG	PRO	A	740	-60.046	16.377	59.111	1.00	45.51
5955	CD	PRO	A	740	-61.342	15.620	59.293	1.00	44.81
5956	C	PRO	A	740	-61.297	17.178	62.414	1.00	46.06
5957	O	PRO	A	740	-62.340	16.718	62.884	1.00	46.86

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**FIGURE 3 DM**

A	B	C	D	E	F	G	H	I	J
5958	O7	NAG	A2311		-101.706	-14.580	110.320	1.00	67.11
5959	C7	NAG	A2311		-100.699	-13.892	110.433	1.00	65.56
5960	C8	NAG	A2311		-100.768	-12.440	110.821	1.00	66.13
5961	N2	NAG	A2311		-99.477	-14.405	110.302	1.00	63.69
5962	C2	NAG	A2311		-99.303	-15.797	109.931	1.00	62.14
5963	C1	NAG	A2311		-98.045	-15.994	109.103	1.00	59.33
5964	C3	NAG	A2311		-99.244	-16.705	111.144	1.00	62.19
5965	O3	NAG	A2311		-100.505	-16.634	111.819	1.00	63.22
5966	C4	NAG	A2311		-99.012	-18.143	110.686	1.00	61.71
5967	O4	NAG	A2311		-98.700	-18.975	111.811	1.00	61.69
5968	C5	NAG	A2311		-97.897	-18.254	109.648	1.00	61.35
5969	O5	NAG	A2311		-98.061	-17.312	108.593	1.00	60.20
5970	C6	NAG	A2311		-97.878	-19.638	109.019	1.00	61.97
5971	O6	NAG	A2311		-96.587	-20.208	109.275	1.00	62.68
5972	O7	NAG	A2411		-69.302	-25.885	106.392	1.00	54.80
5973	C7	NAG	A2411		-68.758	-24.803	106.510	1.00	53.76
5974	C8	NAG	A2411		-69.299	-23.706	107.377	1.00	53.91
5975	N2	NAG	A2411		-67.596	-24.564	105.931	1.00	52.61
5976	C2	NAG	A2411		-67.039	-25.609	105.112	1.00	52.99
5977	C1	NAG	A2411		-66.605	-25.068	103.764	1.00	47.58
5978	C3	NAG	A2411		-65.881	-26.265	105.866	1.00	54.83
5979	O3	NAG	A2411		-66.372	-26.917	107.043	1.00	56.64
5980	C4	NAG	A2411		-65.217	-27.301	104.980	1.00	54.99
5981	O4	NAG	A2411		-64.057	-27.834	105.639	1.00	59.91
5982	C5	NAG	A2411		-64.856	-26.648	103.653	1.00	53.51
5983	O5	NAG	A2411		-66.038	-26.142	103.026	1.00	52.24
5984	C6	NAG	A2411		-64.212	-27.654	102.717	1.00	52.86
5985	O6	NAG	A2411		-65.229	-28.130	101.831	1.00	52.85
5986	O7	NAG	A2412		-60.346	-27.486	103.509	1.00	73.72
5987	C7	NAG	A2412		-60.841	-27.680	104.609	1.00	73.68
5988	C8	NAG	A2412		-60.668	-26.700	105.737	1.00	74.25
5989	N2	NAG	A2412		-61.635	-28.724	104.846	1.00	72.89
5990	C2	NAG	A2412		-62.240	-28.940	106.145	1.00	72.83
5991	C1	NAG	A2412		-63.747	-29.127	106.017	1.00	69.76
5992	C3	NAG	A2412		-61.599	-30.144	106.833	1.00	73.48
5993	O3	NAG	A2412		-60.208	-29.879	107.077	1.00	74.07
5994	C4	NAG	A2412		-62.303	-30.427	108.156	1.00	73.50
5995	O4	NAG	A2412		-61.792	-31.648	108.718	1.00	74.51
5996	C5	NAG	A2412		-63.819	-30.499	107.969	1.00	72.95
5997	O5	NAG	A2412		-64.303	-29.319	107.318	1.00	72.24
5998	C6	NAG	A2412		-64.534	-30.638	109.310	1.00	73.39
5999	O6	NAG	A2412		-64.246	-29.499	110.139	1.00	73.37
6000	O7	NAG	A2931		-75.747	-20.902	123.574	1.00	68.40
6001	C7	NAG	A2931		-75.833	-19.694	123.389	1.00	68.47
6002	C8	NAG	A2931		-76.643	-18.791	124.278	1.00	69.27
6003	N2	NAG	A2931		-75.142	-19.086	122.428	1.00	66.82
6004	C2	NAG	A2931		-74.315	-19.887	121.551	1.00	65.47
6005	C1	NAG	A2931		-74.614	-19.648	120.071	1.00	62.57
6006	C3	NAG	A2931		-72.861	-19.647	121.941	1.00	65.13
6007	O3	NAG	A2931		-72.643	-20.270	123.214	1.00	66.03
6008	C4	NAG	A2931		-71.872	-20.246	120.956	1.00	65.18

**REPLACEMENT SHEET**  
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**FIGURE 3 DN**

A	B	C	D	E	F	G	H	I	J
6009	O4	NAG	A2931		-70.586	-19.657	121.232	1.00	64.70
6010	C5	NAG	A2931		-72.320	-20.032	119.502	1.00	64.87
6011	O5	NAG	A2931		-73.686	-20.431	119.318	1.00	63.71
6012	C6	NAG	A2931		-71.412	-20.759	118.501	1.00	65.29
6013	O6	NAG	A2931		-71.670	-22.169	118.463	1.00	66.16
6014	O7	NAG	A3331		-79.456	-32.271	76.813	1.00	56.81
6015	C7	NAG	A3331		-79.475	-32.704	77.949	1.00	55.21
6016	C8	NAG	A3331		-80.758	-33.009	78.655	1.00	56.21
6017	N2	NAG	A3331		-78.353	-32.997	78.595	1.00	54.94
6018	C2	NAG	A3331		-77.071	-32.724	77.972	1.00	53.94
6019	C1	NAG	A3331		-76.352	-31.662	78.803	1.00	50.83
6020	C3	NAG	A3331		-76.224	-33.980	77.825	1.00	54.42
6021	O3	NAG	A3331		-76.891	-34.893	76.937	1.00	54.46
6022	C4	NAG	A3331		-74.846	-33.570	77.300	1.00	55.36
6023	O4	NAG	A3331		-73.959	-34.698	77.202	1.00	57.49
6024	C5	NAG	A3331		-74.246	-32.498	78.211	1.00	55.58
6025	O5	NAG	A3331		-75.095	-31.348	78.212	1.00	54.08
6026	C6	NAG	A3331		-72.862	-32.063	77.761	1.00	56.37
6027	O6	NAG	A3331		-73.020	-31.081	76.723	1.00	57.36
6028	N	HIS	B	9	-26.838	6.528	39.826	1.00	51.46
6029	CA	HIS	B	9	-26.599	6.867	41.263	1.00	51.24
6030	CB	HIS	B	9	-26.976	5.700	42.165	1.00	51.44
6031	CG	HIS	B	9	-26.270	4.422	41.834	1.00	51.51
6032	ND1	HIS	B	9	-25.316	3.866	42.658	1.00	50.18
6033	CE1	HIS	B	9	-24.880	2.738	42.124	1.00	50.86
6034	NE2	HIS	B	9	-25.517	2.541	40.984	1.00	51.05
6035	CD2	HIS	B	9	-26.391	3.581	40.778	1.00	52.22
6036	C	HIS	B	9	-25.161	7.276	41.507	1.00	50.92
6037	O	HIS	B	9	-24.848	7.893	42.525	1.00	50.67
6038	N	HIS	B	10	-24.284	6.929	40.568	1.00	50.91
6039	CA	HIS	B	10	-22.879	7.326	40.655	1.00	50.79
6040	CB	HIS	B	10	-22.735	8.812	40.314	1.00	51.37
6041	CG	HIS	B	10	-23.356	9.188	39.001	1.00	53.62
6042	ND1	HIS	B	10	-22.705	9.950	38.055	1.00	55.54
6043	CE1	HIS	B	10	-23.489	10.111	37.003	1.00	56.51
6044	NE2	HIS	B	10	-24.624	9.476	37.231	1.00	57.01
6045	CD2	HIS	B	10	-24.568	8.895	38.475	1.00	55.21
6046	C	HIS	B	10	-22.299	7.031	42.041	1.00	49.97
6047	O	HIS	B	10	-21.543	7.823	42.590	1.00	50.21
6048	N	HIS	B	11	-22.704	5.902	42.612	1.00	48.73
6049	CA	HIS	B	11	-22.197	5.443	43.898	1.00	47.84
6050	CB	HIS	B	11	-20.757	4.977	43.751	1.00	47.49
6051	CG	HIS	B	11	-20.599	3.895	42.736	1.00	46.24
6052	ND1	HIS	B	11	-20.982	2.596	42.978	1.00	44.69
6053	CE1	HIS	B	11	-20.735	1.862	41.907	1.00	45.47
6054	NE2	HIS	B	11	-20.227	2.645	40.973	1.00	45.22
6055	CD2	HIS	B	11	-20.141	3.924	41.463	1.00	46.06
6056	C	HIS	B	11	-22.359	6.382	45.085	1.00	47.55
6057	O	HIS	B	11	-21.589	6.341	46.048	1.00	47.46
6058	N	HIS	B	12	-23.371	7.229	45.028	1.00	47.24
6059	CA	HIS	B	12	-23.628	8.090	46.164	1.00	47.40

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**FIGURE 3 DO**

A	B	C	D	E	F	G	H	I	J
6060	CB	HIS	B	12	-24.450	9.308	45.755	1.00	47.98
6061	CG	HIS	B	12	-23.691	10.278	44.912	1.00	49.81
6062	ND1	HIS	B	12	-22.581	10.952	45.375	1.00	51.77
6063	CE1	HIS	B	12	-22.118	11.738	44.418	1.00	53.30
6064	NE2	HIS	B	12	-22.886	11.596	43.352	1.00	53.18
6065	CD2	HIS	B	12	-23.876	10.685	43.634	1.00	52.05
6066	C	HIS	B	12	-24.335	7.308	47.261	1.00	46.64
6067	O	HIS	B	12	-25.076	6.350	46.999	1.00	46.17
6068	N	SER	B	13	-24.068	7.703	48.494	1.00	45.74
6069	CA	SER	B	13	-24.696	7.067	49.621	1.00	45.17
6070	CB	SER	B	13	-24.011	7.502	50.918	1.00	45.34
6071	OG	SER	B	13	-22.627	7.208	50.873	1.00	44.84
6072	C	SER	B	13	-26.154	7.486	49.610	1.00	44.76
6073	O	SER	B	13	-26.474	8.666	49.801	1.00	44.75
6074	N	ARG	B	14	-27.047	6.538	49.349	1.00	43.99
6075	CA	ARG	B	14	-28.455	6.893	49.353	1.00	43.48
6076	CB	ARG	B	14	-29.081	6.839	47.946	1.00	44.34
6077	CG	ARG	B	14	-29.532	5.487	47.438	1.00	46.74
6078	CD	ARG	B	14	-28.437	4.724	46.726	1.00	50.53
6079	NE	ARG	B	14	-28.877	3.996	45.535	1.00	52.35
6080	CZ	ARG	B	14	-28.334	2.846	45.150	1.00	54.53
6081	NH1	ARG	B	14	-27.358	2.316	45.879	1.00	56.16
6082	NH2	ARG	B	14	-28.753	2.220	44.054	1.00	53.87
6083	C	ARG	B	14	-29.258	6.157	50.426	1.00	42.02
6084	O	ARG	B	14	-30.411	6.493	50.684	1.00	42.18
6085	N	LYS	B	15	-28.618	5.183	51.071	1.00	40.01
6086	CA	LYS	B	15	-29.213	4.452	52.181	1.00	37.85
6087	CB	LYS	B	15	-28.399	3.193	52.484	1.00	38.37
6088	CG	LYS	B	15	-28.765	1.968	51.687	1.00	38.55
6089	CD	LYS	B	15	-27.853	0.820	52.068	1.00	38.41
6090	CE	LYS	B	15	-26.649	0.727	51.162	1.00	37.94
6091	NZ	LYS	B	15	-25.836	-0.495	51.508	1.00	38.06
6092	C	LYS	B	15	-29.172	5.281	53.445	1.00	36.28
6093	O	LYS	B	15	-28.301	6.137	53.613	1.00	35.80
6094	N	THR	B	16	-30.105	5.005	54.349	1.00	34.29
6095	CA	THR	B	16	-30.074	5.617	55.665	1.00	32.39
6096	CB	THR	B	16	-31.240	6.588	55.881	1.00	32.78
6097	OG1	THR	B	16	-32.480	5.870	55.918	1.00	32.81
6098	CG2	THR	B	16	-31.389	7.522	54.692	1.00	32.16
6099	C	THR	B	16	-30.131	4.493	56.671	1.00	31.47
6100	O	THR	B	16	-30.352	3.335	56.315	1.00	30.96
6101	N	TYR	B	17	-29.889	4.823	57.927	1.00	30.27
6102	CA	TYR	B	17	-29.969	3.826	58.982	1.00	29.53
6103	CB	TYR	B	17	-29.076	4.257	60.137	1.00	28.58
6104	CG	TYR	B	17	-28.988	3.271	61.260	1.00	26.98
6105	CD1	TYR	B	17	-28.046	2.261	61.238	1.00	25.97
6106	CE1	TYR	B	17	-27.938	1.358	62.275	1.00	25.10
6107	CZ	TYR	B	17	-28.788	1.473	63.364	1.00	26.59
6108	OH	TYR	B	17	-28.689	0.564	64.394	1.00	25.76
6109	CE2	TYR	B	17	-29.741	2.474	63.411	1.00	25.68
6110	CD2	TYR	B	17	-29.835	3.364	62.366	1.00	26.27

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**FIGURE 3 DP**

A	B	C	D	E	F	G	H	I	J
6111	C	TYR	B	17	-31.433	3.772	59.419	1.00	29.18
6112	O	TYR	B	17	-31.931	4.715	60.021	1.00	29.31
6113	N	THR	B	18	-32.127	2.681	59.128	1.00	28.83
6114	CA	THR	B	18	-33.577	2.650	59.393	1.00	28.33
6115	CB	THR	B	18	-34.283	1.890	58.301	1.00	28.04
6116	OG1	THR	B	18	-33.843	0.532	58.361	1.00	27.49
6117	CG2	THR	B	18	-33.839	2.392	56.890	1.00	27.67
6118	C	THR	B	18	-34.015	2.041	60.726	1.00	28.42
6119	O	THR	B	18	-33.225	1.418	61.440	1.00	28.15
6120	N	LEU	B	19	-35.296	2.214	61.032	1.00	28.13
6121	CA	LEU	B	19	-35.874	1.645	62.235	1.00	28.62
6122	CB	LEU	B	19	-37.370	1.958	62.310	1.00	28.69
6123	CG	LEU	B	19	-38.090	1.439	63.555	1.00	30.29
6124	CD1	LEU	B	19	-37.459	2.049	64.794	1.00	30.06
6125	CD2	LEU	B	19	-39.565	1.788	63.486	1.00	29.50
6126	C	LEU	B	19	-35.626	0.144	62.259	1.00	28.23
6127	O	LEU	B	19	-35.243	-0.409	63.287	1.00	28.68
6128	N	THR	B	20	-35.826	-0.501	61.114	1.00	28.11
6129	CA	THR	B	20	-35.579	-1.926	60.970	1.00	28.80
6130	CB	THR	B	20	-36.145	-2.409	59.644	1.00	29.13
6131	OG1	THR	B	20	-37.513	-1.991	59.557	1.00	33.42
6132	CG2	THR	B	20	-36.249	-3.899	59.638	1.00	28.42
6133	C	THR	B	20	-34.089	-2.274	61.057	1.00	28.68
6134	O	THR	B	20	-33.731	-3.372	61.494	1.00	28.68
6135	N	ASP	B	21	-33.215	-1.368	60.623	1.00	27.84
6136	CA	ASP	B	21	-31.793	-1.633	60.803	1.00	27.96
6137	CB	ASP	B	21	-30.910	-0.552	60.163	1.00	27.48
6138	CG	ASP	B	21	-30.980	-0.578	58.658	1.00	27.90
6139	OD1	ASP	B	21	-31.234	-1.661	58.102	1.00	29.99
6140	OD2	ASP	B	21	-30.850	0.434	57.948	1.00	27.64
6141	C	ASP	B	21	-31.500	-1.746	62.292	1.00	27.47
6142	O	ASP	B	21	-30.852	-2.681	62.730	1.00	27.65
6143	N	TYR	B	22	-31.990	-0.786	63.066	1.00	27.56
6144	CA	TYR	B	22	-31.798	-0.786	64.511	1.00	27.07
6145	CB	TYR	B	22	-32.387	0.496	65.095	1.00	27.26
6146	CG	TYR	B	22	-32.479	0.536	66.603	1.00	25.76
6147	CD1	TYR	B	22	-31.354	0.327	67.390	1.00	25.07
6148	CE1	TYR	B	22	-31.437	0.361	68.771	1.00	26.02
6149	CZ	TYR	B	22	-32.658	0.625	69.376	1.00	26.47
6150	OH	TYR	B	22	-32.730	0.652	70.740	1.00	28.72
6151	CE2	TYR	B	22	-33.791	0.833	68.622	1.00	24.53
6152	CD2	TYR	B	22	-33.698	0.788	67.238	1.00	24.72
6153	C	TYR	B	22	-32.462	-1.990	65.152	1.00	27.28
6154	O	TYR	B	22	-31.860	-2.704	65.952	1.00	26.36
6155	N	LEU	B	23	-33.717	-2.218	64.787	1.00	28.09
6156	CA	LEU	B	23	-34.463	-3.332	65.374	1.00	28.86
6157	CB	LEU	B	23	-35.959	-3.162	65.148	1.00	28.70
6158	CG	LEU	B	23	-36.527	-1.946	65.867	1.00	28.01
6159	CD1	LEU	B	23	-38.043	-1.974	65.769	1.00	27.16
6160	CD2	LEU	B	23	-36.049	-1.928	67.336	1.00	27.83
6161	C	LEU	B	23	-33.989	-4.725	64.962	1.00	29.70

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FIGURE 3 DQ

A	B	C	D	E	F	G	H	I	J
6162	O	LEU	B	23	-34.043	-5.656	65.771	1.00	29.97
6163	N	LYS	B	24	-33.506	-4.899	63.736	1.00	31.19
6164	CA	LYS	B	24	-33.044	-6.248	63.338	1.00	33.19
6165	CB	LYS	B	24	-33.556	-6.624	61.946	1.00	32.67
6166	CG	LYS	B	24	-35.050	-6.558	61.801	1.00	34.40
6167	CD	LYS	B	24	-35.750	-7.527	62.748	1.00	36.99
6168	CE	LYS	B	24	-37.226	-7.660	62.398	1.00	38.20
6169	NZ	LYS	B	24	-37.985	-8.390	63.451	1.00	39.33
6170	C	LYS	B	24	-31.518	-6.371	63.417	1.00	33.92
6171	O	LYS	B	24	-30.911	-7.210	62.753	1.00	34.63
6172	N	ASN	B	25	-30.921	-5.515	64.243	1.00	35.51
6173	CA	ASN	B	25	-29.473	-5.455	64.485	1.00	37.54
6174	CB	ASN	B	25	-29.083	-6.367	65.658	1.00	37.71
6175	CG	ASN	B	25	-28.007	-5.750	66.536	1.00	41.32
6176	OD1	ASN	B	25	-26.832	-5.676	66.146	1.00	44.42
6177	ND2	ASN	B	25	-28.400	-5.287	67.726	1.00	42.73
6178	C	ASN	B	25	-28.577	-5.684	63.250	1.00	37.43
6179	O	ASN	B	25	-27.533	-6.328	63.326	1.00	38.79
6180	N	THR	B	26	-29.007	-5.106	62.133	1.00	37.35
6181	CA	THR	B	26	-28.351	-5.149	60.825	1.00	37.43
6182	CB	THR	B	26	-29.128	-4.228	59.856	1.00	37.53
6183	OG1	THR	B	26	-30.456	-4.736	59.653	1.00	38.93
6184	CG2	THR	B	26	-28.513	-4.276	58.461	1.00	36.89
6185	C	THR	B	26	-26.877	-4.710	60.783	1.00	37.60
6186	O	THR	B	26	-26.050	-5.306	60.086	1.00	37.23
6187	N	TYR	B	27	-26.571	-3.625	61.480	1.00	37.59
6188	CA	TYR	B	27	-25.217	-3.115	61.540	1.00	37.80
6189	CB	TYR	B	27	-25.188	-1.630	61.243	1.00	37.38
6190	CG	TYR	B	27	-25.714	-1.301	59.872	1.00	37.50
6191	CD1	TYR	B	27	-24.993	-1.628	58.730	1.00	38.34
6192	CE1	TYR	B	27	-25.484	-1.313	57.460	1.00	38.30
6193	CZ	TYR	B	27	-26.711	-0.680	57.342	1.00	37.34
6194	OH	TYR	B	27	-27.225	-0.356	56.103	1.00	36.98
6195	CE2	TYR	B	27	-27.433	-0.359	58.471	1.00	36.73
6196	CD2	TYR	B	27	-26.941	-0.673	59.714	1.00	35.88
6197	C	TYR	B	27	-24.732	-3.405	62.929	1.00	38.00
6198	O	TYR	B	27	-25.262	-2.894	63.916	1.00	37.90
6199	N	ARG	B	28	-23.715	-4.246	62.998	1.00	38.99
6200	CA	ARG	B	28	-23.300	-4.776	64.275	1.00	39.79
6201	CB	ARG	B	28	-23.452	-6.296	64.269	1.00	40.10
6202	CG	ARG	B	28	-23.869	-6.872	65.611	1.00	43.94
6203	CD	ARG	B	28	-24.428	-8.312	65.544	1.00	47.66
6204	NE	ARG	B	28	-25.551	-8.447	64.616	1.00	50.54
6205	CZ	ARG	B	28	-26.333	-9.527	64.544	1.00	52.62
6206	NH1	ARG	B	28	-26.131	-10.561	65.354	1.00	53.53
6207	NH2	ARG	B	28	-27.323	-9.576	63.665	1.00	52.85
6208	C	ARG	B	28	-21.906	-4.396	64.721	1.00	39.43
6209	O	ARG	B	28	-20.924	-4.536	63.991	1.00	39.12
6210	N	LEU	B	29	-21.856	-3.924	65.957	1.00	39.68
6211	CA	LEU	B	29	-20.637	-3.556	66.620	1.00	39.80
6212	CB	LEU	B	29	-21.008	-2.766	67.868	1.00	39.92

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**FIGURE 3 DR**

A	B	C	D	E	F	G	H	I	J
6213	CG	LEU	B	29	-20.875	-1.249	67.910	1.00	40.58
6214	CD1	LEU	B	29	-21.683	-0.732	69.085	1.00	40.56
6215	CD2	LEU	B	29	-21.303	-0.585	66.623	1.00	40.39
6216	C	LEU	B	29	-19.945	-4.842	67.035	1.00	39.84
6217	G	LEU	B	29	-20.483	-5.610	67.826	1.00	39.65
6218	N	LYS	B	30	-18.768	-5.108	66.495	1.00	40.26
6219	CA	LYS	B	30	-18.047	-6.297	66.931	1.00	40.77
6220	CB	LYS	B	30	-17.055	-6.779	65.885	1.00	41.21
6221	CG	LYS	B	30	-17.720	-7.358	64.650	1.00	43.51
6222	CD	LYS	B	30	-16.815	-8.350	63.947	1.00	45.58
6223	CE	LYS	B	30	-17.202	-9.800	64.271	1.00	48.08
6224	NZ	LYS	B	30	-17.225	-10.113	65.734	1.00	48.56
6225	C	LYS	B	30	-17.347	-5.997	68.237	1.00	40.39
6226	O	LYS	B	30	-16.761	-4.937	68.412	1.00	40.34
6227	N	LEU	B	31	-17.461	-6.920	69.174	1.00	40.68
6228	CA	LEU	B	31	-16.810	-6.774	70.456	1.00	41.26
6229	CB	LEU	B	31	-17.755	-7.188	71.583	1.00	41.72
6230	CG	LEU	B	31	-18.821	-6.197	72.049	1.00	43.90
6231	CD1	LEU	B	31	-19.901	-5.995	70.972	1.00	45.00
6232	CD2	LEU	B	31	-19.443	-6.679	73.365	1.00	44.09
6233	C	LEU	B	31	-15.596	-7.684	70.477	1.00	40.83
6234	O	LEU	B	31	-15.402	-8.491	69.568	1.00	40.77
6235	N	TYR	B	32	-14.762	-7.524	71.494	1.00	40.42
6236	CA	TYR	B	32	-13.677	-8.456	71.722	1.00	40.52
6237	CB	TYR	B	32	-12.325	-7.966	71.205	1.00	40.33
6238	CG	TYR	B	32	-11.335	-9.111	71.097	1.00	40.26
6239	CD1	TYR	B	32	-10.746	-9.656	72.230	1.00	39.09
6240	CE1	TYR	B	32	-9.857	-10.715	72.138	1.00	39.65
6241	CZ	TYR	B	32	-9.555	-11.253	70.901	1.00	40.53
6242	OH	TYR	B	32	-8.659	-12.305	70.802	1.00	41.94
6243	CE2	TYR	B	32	-10.131	-10.733	69.762	1.00	40.34
6244	CD2	TYR	B	32	-11.024	-9.676	69.863	1.00	40.59
6245	C	TYR	B	32	-13.643	-8.648	73.215	1.00	40.78
6246	O	TYR	B	32	-12.922	-7.954	73.935	1.00	40.51
6247	N	SER	B	33	-14.447	-9.590	73.675	1.00	41.07
6248	CA	SER	B	33	-14.612	-9.810	75.093	1.00	42.02
6249	CB	SER	B	33	-16.088	-10.092	75.391	1.00	42.31
6250	OG	SER	B	33	-16.253	-10.612	76.698	1.00	44.32
6251	C	SER	B	33	-13.725	-10.935	75.582	1.00	42.28
6252	O	SER	B	33	-13.885	-12.086	75.192	1.00	43.13
6253	N	LEU	B	34	-12.774	-10.607	76.441	1.00	42.35
6254	CA	LEU	B	34	-11.872	-11.626	76.933	1.00	42.22
6255	CB	LEU	B	34	-10.449	-11.343	76.456	1.00	41.83
6256	CG	LEU	B	34	-9.857	-9.991	76.829	1.00	40.59
6257	CD1	LEU	B	34	-9.349	-10.059	78.253	1.00	38.90
6258	CD2	LEU	B	34	-8.755	-9.608	75.849	1.00	38.10
6259	C	LEU	B	34	-11.913	-11.776	78.444	1.00	42.66
6260	O	LEU	B	34	-12.320	-10.864	79.166	1.00	42.16
6261	N	ARG	B	35	-11.510	-12.956	78.904	1.00	43.14
6262	CA	ARG	B	35	-11.381	-13.223	80.320	1.00	43.97
6263	CB	ARG	B	35	-12.289	-14.372	80.748	1.00	44.41



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**FIGURE 3 DS**

A	B	C	D	E	F	G	H	I	J
6264	CG	ARG	B	35	-13.748	-14.178	80.430	1.00	46.96
6265	CD	ARG	B	35	-14.457	-15.498	80.199	1.00	51.91
6266	NE	ARG	B	35	-15.907	-15.361	80.144	1.00	54.36
6267	CZ	ARG	B	35	-16.737	-16.049	80.915	1.00	55.95
6268	NH1	ARG	B	35	-16.254	-16.910	81.803	1.00	55.92
6269	NH2	ARG	B	35	-18.050	-15.879	80.796	1.00	56.97
6270	C	ARG	B	35	-9.937	-13.613	80.582	1.00	43.91
6271	O	ARG	B	35	-9.476	-14.661	80.113	1.00	43.73
6272	N	TRP	B	36	-9.219	-12.775	81.314	1.00	43.77
6273	CA	TRP	B	36	-7.841	-13.093	81.648	1.00	44.42
6274	CB	TRP	B	36	-7.142	-11.895	82.283	1.00	43.77
6275	CG	TRP	B	36	-6.864	-10.747	81.372	1.00	41.88
6276	CD1	TRP	B	36	-7.506	-9.547	81.356	1.00	41.08
6277	NE1	TRP	B	36	-6.960	-8.727	80.399	1.00	37.93
6278	CE2	TRP	B	36	-5.935	-9.393	79.785	1.00	38.72
6279	CD2	TRP	B	36	-5.845	-10.665	80.377	1.00	39.63
6280	CE3	TRP	B	36	-4.859	-11.545	79.920	1.00	40.34
6281	CZ3	TRP	B	36	-4.024	-11.143	78.910	1.00	38.87
6282	CH2	TRP	B	36	-4.144	-9.873	78.338	1.00	40.20
6283	CZ2	TRP	B	36	-5.085	-8.981	78.765	1.00	38.43
6284	C	TRP	B	36	-7.843	-14.246	82.647	1.00	45.28
6285	O	TRP	B	36	-8.602	-14.223	83.605	1.00	45.67
6286	N	ILE	B	37	-7.006	-15.253	82.433	1.00	46.12
6287	CA	ILE	B	37	-6.920	-16.341	83.399	1.00	47.03
6288	CB	ILE	B	37	-7.174	-17.714	82.741	1.00	47.02
6289	CG1	ILE	B	37	-6.279	-17.919	81.518	1.00	47.30
6290	CD1	ILE	B	37	-4.968	-18.566	81.840	1.00	48.08
6291	CG2	ILE	B	37	-8.607	-17.844	82.357	1.00	46.71
6292	C	ILE	B	37	-5.583	-16.314	84.128	1.00	47.70
6293	O	ILE	B	37	-5.393	-17.006	85.129	1.00	47.41
6294	N	SER	B	38	-4.668	-15.490	83.630	1.00	48.57
6295	CA	SER	B	38	-3.357	-15.353	84.246	1.00	49.53
6296	CB	SER	B	38	-2.418	-16.449	83.753	1.00	49.32
6297	OG	SER	B	38	-1.954	-16.147	82.451	1.00	48.71
6298	C	SER	B	38	-2.758	-14.007	83.886	1.00	50.44
6299	O	SER	B	38	-3.457	-13.106	83.428	1.00	51.01
6300	N	ASP	B	39	-1.452	-13.879	84.066	1.00	50.86
6301	CA	ASP	B	39	-0.784	-12.632	83.749	1.00	51.46
6302	CB	ASP	B	39	0.382	-12.396	84.705	1.00	51.49
6303	CG	ASP	B	39	0.913	-10.989	84.628	1.00	52.93
6304	OD1	ASP	B	39	2.156	-10.826	84.682	1.00	54.27
6305	OD2	ASP	B	39	0.166	-9.982	84.518	1.00	53.13
6306	C	ASP	B	39	-0.279	-12.631	82.321	1.00	51.44
6307	O	ASP	B	39	0.347	-11.668	81.889	1.00	51.64
6308	N	HIS	B	40	-0.573	-13.697	81.582	1.00	51.62
6309	CA	HIS	B	40	-0.059	-13.849	80.227	1.00	51.91
6310	CB	HIS	B	40	1.104	-14.850	80.213	1.00	52.32
6311	CG	HIS	B	40	1.618	-15.200	81.576	1.00	54.08
6312	ND1	HIS	B	40	2.452	-14.370	82.297	1.00	54.07
6313	CE1	HIS	B	40	2.738	-14.939	83.456	1.00	55.31
6314	NE2	HIS	B	40	2.113	-16.103	83.516	1.00	55.18

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**FIGURE 3 DT**

A	B	C	D	E	F	G	H	I	J
6315	CD2	HIS	B	40	1.405	-16.290	82.354	1.00	55.14
6316	C	HIS	B	40	-1.106	-14.346	79.247	1.00	51.73
6317	O	HIS	B	40	-0.952	-14.189	78.037	1.00	51.68
6318	N	GLU	B	41	-2.162	-14.966	79.755	1.00	51.57
6319	CA	GLU	B	41	-3.165	-15.525	78.863	1.00	51.93
6320	CB	GLU	B	41	-3.110	-17.053	78.913	1.00	52.01
6321	CG	GLU	B	41	-1.830	-17.658	78.355	1.00	53.18
6322	CD	GLU	B	41	-1.681	-19.133	78.686	1.00	54.96
6323	OE1	GLU	B	41	-1.048	-19.464	79.720	1.00	55.10
6324	OE2	GLU	B	41	-2.195	-19.962	77.906	1.00	55.09
6325	C	GLU	B	41	-4.590	-15.065	79.154	1.00	51.90
6326	O	GLU	B	41	-4.940	-14.762	80.299	1.00	51.84
6327	N	TYR	B	42	-5.408	-15.009	78.106	1.00	51.74
6328	CA	TYR	B	42	-6.831	-14.743	78.280	1.00	51.50
6329	CB	TYR	B	42	-7.226	-13.325	77.833	1.00	50.57
6330	CG	TYR	B	42	-6.995	-12.992	76.368	1.00	47.94
6331	CD1	TYR	B	42	-7.893	-13.394	75.392	1.00	45.17
6332	CE1	TYR	B	42	-7.694	-13.081	74.067	1.00	43.18
6333	CZ	TYR	B	42	-6.592	-12.343	73.699	1.00	43.34
6334	OH	TYR	B	42	-6.389	-12.031	72.371	1.00	41.78
6335	CE2	TYR	B	42	-5.691	-11.921	74.651	1.00	43.45
6336	CD2	TYR	B	42	-5.896	-12.242	75.972	1.00	44.84
6337	C	TYR	B	42	-7.655	-15.809	77.552	1.00	52.30
6338	O	TYR	B	42	-7.148	-16.489	76.658	1.00	52.29
6339	N	LEU	B	43	-8.910	-15.968	77.965	1.00	52.88
6340	CA	LEU	B	43	-9.832	-16.857	77.286	1.00	53.73
6341	CB	LEU	B	43	-10.737	-17.551	78.294	1.00	53.62
6342	CG	LEU	B	43	-10.033	-18.439	79.320	1.00	54.25
6343	CD1	LEU	B	43	-10.910	-18.638	80.538	1.00	54.41
6344	CD2	LEU	B	43	-9.644	-19.777	78.704	1.00	54.35
6345	C	LEU	B	43	-10.671	-16.031	76.311	1.00	54.45
6346	O	LEU	B	43	-10.997	-14.881	76.588	1.00	54.30
6347	N	TYR	B	44	-11.006	-16.613	75.166	1.00	55.68
6348	CA	TYR	B	44	-11.817	-15.923	74.171	1.00	57.26
6349	CB	TYR	B	44	-10.930	-15.157	73.178	1.00	57.10
6350	CG	TYR	B	44	-11.671	-14.398	72.091	1.00	57.59
6351	CD1	TYR	B	44	-12.356	-13.221	72.372	1.00	58.09
6352	CE1	TYR	B	44	-13.030	-12.516	71.369	1.00	58.19
6353	CZ	TYR	B	44	-13.022	-12.993	70.076	1.00	58.91
6354	OH	TYR	B	44	-13.687	-12.312	69.075	1.00	58.89
6355	CE2	TYR	B	44	-12.345	-14.158	69.773	1.00	59.05
6356	CD2	TYR	B	44	-11.673	-14.853	70.778	1.00	58.95
6357	C	TYR	B	44	-12.730	-16.925	73.470	1.00	58.24
6358	O	TYR	B	44	-12.459	-18.115	73.462	1.00	58.37
6359	N	LYS	B	45	-13.828	-16.435	72.910	1.00	59.96
6360	CA	LYS	B	45	-14.817	-17.274	72.236	1.00	61.44
6361	CB	LYS	B	45	-16.173	-17.124	72.920	1.00	61.57
6362	CG	LYS	B	45	-16.230	-16.025	73.991	1.00	62.26
6363	CD	LYS	B	45	-15.996	-14.613	73.431	1.00	62.59
6364	CE	LYS	B	45	-16.607	-13.542	74.347	1.00	63.16
6365	NZ	LYS	B	45	-18.100	-13.633	74.435	1.00	61.86

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**FIGURE 3 DU**

A	B	C	D	E	F	G	H	I	J
6366	C	LYS	B	45	-14.922	-16.889	70.770	1.00	62.40
6367	O	LYS	B	45	-15.245	-15.751	70.455	1.00	62.63
6368	N	GLN	B	46	-14.661	-17.831	69.869	1.00	63.60
6369	CA	GLN	B	46	-14.641	-17.489	68.447	1.00	64.81
6370	CB	GLN	B	46	-13.338	-17.957	67.794	1.00	64.71
6371	CG	GLN	B	46	-12.837	-16.995	66.726	1.00	66.33
6372	CD	GLN	B	46	-11.343	-17.113	66.469	1.00	68.01
6373	OE1	GLN	B	46	-10.534	-16.532	67.202	1.00	68.30
6374	NE2	GLN	B	46	-10.971	-17.860	65.427	1.00	67.36
6375	C	GLN	B	46	-15.862	-17.981	67.668	1.00	65.41
6376	O	GLN	B	46	-16.773	-17.208	67.363	1.00	65.55
6377	N	GLU	B	47	-15.866	-19.260	67.314	1.00	65.98
6378	CA	GLU	B	47	-17.036	-19.846	66.675	1.00	66.56
6379	CB	GLU	B	47	-16.703	-20.456	65.307	1.00	66.89
6380	CG	GLU	B	47	-17.220	-19.640	64.120	1.00	68.68
6381	CD	GLU	B	47	-16.237	-18.599	63.590	1.00	71.16
6382	OE1	GLU	B	47	-16.247	-17.434	64.076	1.00	72.38
6383	OE2	GLU	B	47	-15.473	-18.943	62.656	1.00	70.88
6384	C	GLU	B	47	-17.619	-20.854	67.668	1.00	66.36
6385	O	GLU	B	47	-17.660	-22.064	67.430	1.00	66.62
6386	N	ASN	B	48	-18.041	-20.304	68.803	1.00	65.95
6387	CA	ASN	B	48	-18.581	-21.041	69.950	1.00	65.37
6388	CB	ASN	B	48	-19.957	-21.680	69.676	1.00	65.48
6389	CG	ASN	B	48	-21.116	-20.758	70.094	1.00	65.80
6390	OD1	ASN	B	48	-21.165	-20.288	71.239	1.00	64.98
6391	ND2	ASN	B	48	-22.032	-20.477	69.162	1.00	65.73
6392	C	ASN	B	48	-17.616	-21.941	70.736	1.00	64.81
6393	O	ASN	B	48	-17.971	-22.434	71.807	1.00	64.82
6394	N	ASN	B	49	-16.400	-22.138	70.226	1.00	63.93
6395	CA	ASN	B	49	-15.387	-22.856	70.993	1.00	63.05
6396	CB	ASN	B	49	-14.321	-23.493	70.101	1.00	63.20
6397	CG	ASN	B	49	-14.676	-23.455	68.628	1.00	63.85
6398	OD1	ASN	B	49	-14.554	-22.414	67.976	1.00	65.23
6399	ND2	ASN	B	49	-15.092	-24.596	68.087	1.00	63.26
6400	C	ASN	B	49	-14.702	-21.861	71.923	1.00	62.50
6401	O	ASN	B	49	-14.864	-20.649	71.780	1.00	62.26
6402	N	ILE	B	50	-13.931	-22.367	72.877	1.00	61.74
6403	CA	ILE	B	50	-13.226	-21.486	73.787	1.00	60.91
6404	CB	ILE	B	50	-13.512	-21.857	75.244	1.00	61.30
6405	CG1	ILE	B	50	-15.005	-21.701	75.542	1.00	61.57
6406	CD1	ILE	B	50	-15.350	-22.003	76.982	1.00	61.75
6407	CG2	ILE	B	50	-12.706	-20.969	76.200	1.00	60.95
6408	C	ILE	B	50	-11.742	-21.534	73.500	1.00	60.12
6409	O	ILE	B	50	-11.081	-22.521	73.787	1.00	59.88
6410	N	LEU	B	51	-11.239	-20.458	72.909	1.00	59.28
6411	CA	LEU	B	51	-9.831	-20.335	72.572	1.00	58.43
6412	CB	LEU	B	51	-9.658	-19.391	71.381	1.00	58.12
6413	CG	LEU	B	51	-9.703	-20.085	70.019	1.00	58.00
6414	CD1	LEU	B	51	-10.759	-21.167	70.027	1.00	57.14
6415	CD2	LEU	B	51	-9.933	-19.103	68.885	1.00	57.24
6416	C	LEU	B	51	-9.038	-19.818	73.759	1.00	57.94

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**FIGURE 3 DV**

A	B	C	D	E	F	G	H	I	J
6417	O	LEU	B	51	-9.608	-19.303	74.713	1.00	57.72
6418	N	VAL	B	52	-7.723	-19.986	73.712	1.00	57.43
6419	CA	VAL	B	52	-6.860	-19.429	74.746	1.00	56.95
6420	CB	VAL	B	52	-6.370	-20.478	75.756	1.00	57.02
6421	CG1	VAL	B	52	-5.285	-19.891	76.638	1.00	56.40
6422	CG2	VAL	B	52	-5.866	-21.719	75.049	1.00	56.93
6423	C	VAL	B	52	-5.690	-18.727	74.078	1.00	56.84
6424	O	VAL	B	52	-4.989	-19.301	73.248	1.00	56.50
6425	N	PHE	B	53	-5.496	-17.467	74.434	1.00	56.79
6426	CA	PHE	B	53	-4.467	-16.673	73.805	1.00	56.75
6427	CB	PHE	B	53	-5.044	-15.368	73.277	1.00	56.60
6428	CG	PHE	B	53	-6.099	-15.554	72.245	1.00	57.26
6429	CD1	PHE	B	53	-7.339	-16.070	72.590	1.00	57.88
6430	CE1	PHE	B	53	-8.321	-16.235	71.645	1.00	57.75
6431	CZ	PHE	B	53	-8.077	-15.889	70.336	1.00	58.84
6432	CE2	PHE	B	53	-6.844	-15.375	69.973	1.00	58.70
6433	CD2	PHE	B	53	-5.862	-15.209	70.927	1.00	57.58
6434	C	PHE	B	53	-3.329	-16.344	74.729	1.00	56.71
6435	O	PHE	B	53	-3.484	-16.262	75.941	1.00	56.63
6436	N	ASN	B	54	-2.182	-16.146	74.100	1.00	56.98
6437	CA	ASN	B	54	-0.966	-15.738	74.743	1.00	57.09
6438	CB	ASN	B	54	0.171	-16.568	74.181	1.00	57.12
6439	CG	ASN	B	54	1.498	-16.206	74.769	1.00	56.01
6440	OD1	ASN	B	54	2.111	-15.213	74.381	1.00	54.87
6441	ND2	ASN	B	54	1.965	-17.022	75.703	1.00	55.05
6442	C	ASN	B	54	-0.799	-14.286	74.342	1.00	57.73
6443	O	ASN	B	54	-0.528	-13.986	73.181	1.00	57.55
6444	N	ALA	B	55	-0.994	-13.383	75.292	1.00	58.43
6445	CA	ALA	B	55	-0.932	-11.960	75.000	1.00	59.29
6446	CB	ALA	B	55	-1.108	-11.160	76.277	1.00	59.33
6447	C	ALA	B	55	0.369	-11.587	74.321	1.00	59.88
6448	O	ALA	B	55	0.419	-10.651	73.524	1.00	60.04
6449	N	GLU	B	56	1.413	-12.337	74.645	1.00	60.75
6450	CA	GLU	B	56	2.749	-12.095	74.130	1.00	61.77
6451	CB	GLU	B	56	3.728	-13.068	74.776	1.00	62.15
6452	CG	GLU	B	56	4.532	-12.443	75.894	1.00	63.77
6453	CD	GLU	B	56	5.370	-11.280	75.395	1.00	66.27
6454	OE1	GLU	B	56	6.291	-11.541	74.584	1.00	67.34
6455	OE2	GLU	B	56	5.105	-10.117	75.805	1.00	65.91
6456	C	GLU	B	56	2.883	-12.139	72.607	1.00	62.06
6457	O	GLU	B	56	3.203	-11.127	71.983	1.00	62.17
6458	N	TYR	B	57	2.673	-13.311	72.013	1.00	62.35
6459	CA	TYR	B	57	2.769	-13.431	70.560	1.00	62.74
6460	CB	TYR	B	57	3.508	-14.701	70.125	1.00	63.09
6461	CG	TYR	B	57	4.429	-15.295	71.152	1.00	64.05
6462	CD1	TYR	B	57	5.027	-14.509	72.119	1.00	65.43
6463	CE1	TYR	B	57	5.864	-15.056	73.061	1.00	66.27
6464	CZ	TYR	B	57	6.120	-16.403	73.041	1.00	66.25
6465	OH	TYR	B	57	6.963	-16.950	73.978	1.00	67.79
6466	CE2	TYR	B	57	5.545	-17.205	72.085	1.00	66.31
6467	CD2	TYR	B	57	4.706	-16.650	71.149	1.00	65.51

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FIGURE 3 DW

A	B	C	D	E	F	G	H	I	J
6468	C	TYR	B	57	1.382	-13.440	69.945	1.00	62.46
6469	O	TYR	B	57	1.233	-13.316	68.733	1.00	62.46
6470	N	GLY	B	58	0.369	-13.594	70.787	1.00	62.28
6471	CA	GLY	B	58	-1.004	-13.617	70.317	1.00	62.29
6472	C	GLY	B	58	-1.392	-14.950	69.710	1.00	62.12
6473	O	GLY	B	58	-2.419	-15.056	69.047	1.00	61.90
6474	N	ASN	B	59	-0.560	-15.966	69.928	1.00	62.10
6475	CA	ASN	B	59	-0.838	-17.299	69.409	1.00	62.12
6476	CB	ASN	B	59	0.426	-18.160	69.412	1.00	62.09
6477	CG	ASN	B	59	0.910	-18.464	70.815	1.00	62.18
6478	OD1	ASN	B	59	1.191	-17.553	71.586	1.00	60.82
6479	ND2	ASN	B	59	0.993	-19.748	71.160	1.00	64.54
6480	C	ASN	B	59	-1.904	-17.977	70.256	1.00	62.01
6481	O	ASN	B	59	-1.908	-17.865	71.484	1.00	62.06
6482	N	SER	B	60	-2.804	-18.691	69.605	1.00	61.92
6483	CA	SER	B	60	-3.850	-19.373	70.340	1.00	61.95
6484	CB	SER	B	60	-5.204	-18.728	70.056	1.00	61.91
6485	OG	SER	B	60	-5.667	-19.113	68.772	1.00	62.01
6486	C	SER	B	60	-3.945	-20.844	69.995	1.00	61.93
6487	O	SER	B	60	-3.346	-21.325	69.040	1.00	61.77
6488	N	SER	B	61	-4.708	-21.552	70.815	1.00	62.17
6489	CA	SER	B	61	-5.069	-22.932	70.555	1.00	62.30
6490	CB	SER	B	61	-4.048	-23.917	71.137	1.00	62.27
6491	OG	SER	B	61	-3.943	-23.803	72.538	1.00	62.62
6492	C	SER	B	61	-6.455	-23.110	71.158	1.00	62.28
6493	O	SER	B	61	-6.931	-22.250	71.904	1.00	62.54
6494	N	VAL	B	62	-7.125	-24.198	70.810	1.00	62.21
6495	CA	VAL	B	62	-8.445	-24.449	71.357	1.00	61.76
6496	CB	VAL	B	62	-9.174	-25.565	70.591	1.00	61.90
6497	CG1	VAL	B	62	-10.480	-25.921	71.291	1.00	61.46
6498	CG2	VAL	B	62	-9.422	-25.139	69.141	1.00	61.92
6499	C	VAL	B	62	-8.277	-24.855	72.807	1.00	61.57
6500	O	VAL	B	62	-7.427	-25.691	73.131	1.00	61.62
6501	N	PHE	B	63	-9.067	-24.244	73.683	1.00	60.96
6502	CA	PHE	B	63	-9.010	-24.560	75.098	1.00	60.46
6503	CB	PHE	B	63	-9.159	-23.290	75.932	1.00	60.45
6504	CG	PHE	B	63	-9.346	-23.553	77.399	1.00	60.16
6505	CD1	PHE	B	63	-10.613	-23.705	77.931	1.00	59.55
6506	CE1	PHE	B	63	-10.788	-23.956	79.270	1.00	59.59
6507	CZ	PHE	B	63	-9.695	-24.050	80.099	1.00	60.18
6508	CE2	PHE	B	63	-8.425	-23.895	79.584	1.00	60.64
6509	CD2	PHE	B	63	-8.254	-23.651	78.240	1.00	59.87
6510	C	PHE	B	63	-10.137	-25.515	75.425	1.00	60.33
6511	O	PHE	B	63	-9.985	-26.460	76.201	1.00	60.23
6512	N	LEU	B	64	-11.283	-25.244	74.824	1.00	60.21
6513	CA	LEU	B	64	-12.467	-26.039	75.041	1.00	60.12
6514	CB	LEU	B	64	-13.212	-25.543	76.274	1.00	60.27
6515	CG	LEU	B	64	-14.335	-26.436	76.790	1.00	60.44
6516	CD1	LEU	B	64	-13.765	-27.490	77.728	1.00	59.69
6517	CD2	LEU	B	64	-15.378	-25.585	77.495	1.00	60.61
6518	C	LEU	B	64	-13.349	-25.892	73.822	1.00	60.20

**REPLACEMENT SHEET**  
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**FIGURE 3 DX**

A	B	C	D	E	F	G	H	I	J
6519	O	LEU	B	64	-14.011	-24.866	73.635	1.00	60.10
6520	N	GLU	B	65	-13.328	-26.906	72.968	1.00	60.28
6521	CA	GLU	B	65	-14.175	-26.897	71.791	1.00	60.35
6522	CB	GLU	B	65	-13.674	-27.905	70.760	1.00	60.68
6523	CG	GLU	B	65	-13.138	-29.193	71.362	1.00	61.58
6524	CD	GLU	B	65	-12.352	-30.009	70.355	1.00	63.25
6525	OE1	GLU	B	65	-12.038	-31.190	70.647	1.00	62.40
6526	OE2	GLU	B	65	-12.044	-29.457	69.271	1.00	63.97
6527	C	GLU	B	65	-15.567	-27.252	72.261	1.00	59.89
6528	O	GLU	B	65	-15.727	-28.072	73.162	1.00	59.64
6529	N	ASN	B	66	-16.579	-26.620	71.680	1.00	59.76
6530	CA	ASN	B	66	-17.937	-26.937	72.098	1.00	59.62
6531	CB	ASN	B	66	-18.818	-25.704	72.323	1.00	60.30
6532	CG	ASN	B	66	-19.246	-25.571	73.777	1.00	61.27
6533	OD1	ASN	B	66	-19.333	-26.574	74.502	1.00	62.57
6534	ND2	ASN	B	66	-19.503	-24.343	74.214	1.00	62.45
6535	C	ASN	B	66	-18.652	-28.005	71.308	1.00	58.77
6536	O	ASN	B	66	-19.642	-27.760	70.620	1.00	59.19
6537	N	SER	B	67	-18.092	-29.197	71.421	1.00	57.46
6538	CA	SER	B	67	-18.703	-30.416	70.970	1.00	56.01
6539	CB	SER	B	67	-17.907	-31.039	69.826	1.00	56.07
6540	OG	SER	B	67	-16.517	-31.116	70.123	1.00	56.11
6541	C	SER	B	67	-18.569	-31.213	72.262	1.00	55.06
6542	O	SER	B	67	-19.113	-32.303	72.415	1.00	54.84
6543	N	THR	B	68	-17.836	-30.618	73.202	1.00	53.88
6544	CA	THR	B	68	-17.585	-31.215	74.509	1.00	53.38
6545	CB	THR	B	68	-16.723	-30.287	75.380	1.00	53.52
6546	OG1	THR	B	68	-15.492	-29.980	74.710	1.00	54.39
6547	CG2	THR	B	68	-16.279	-31.019	76.639	1.00	52.84
6548	C	THR	B	68	-18.858	-31.530	75.280	1.00	52.69
6549	O	THR	B	68	-18.966	-32.595	75.885	1.00	52.90
6550	N	PHE	B	69	-19.814	-30.607	75.269	1.00	51.44
6551	CA	PHE	B	69	-21.051	-30.820	76.005	1.00	50.59
6552	CB	PHE	B	69	-21.206	-29.792	77.136	1.00	50.28
6553	CG	PHE	B	69	-19.956	-29.565	77.920	1.00	48.47
6554	CD1	PHE	B	69	-19.556	-30.466	78.890	1.00	47.69
6555	CE1	PHE	B	69	-18.394	-30.261	79.602	1.00	46.18
6556	CZ	PHE	B	69	-17.622	-29.155	79.347	1.00	45.66
6557	CE2	PHE	B	69	-18.014	-28.248	78.379	1.00	46.23
6558	CD2	PHE	B	69	-19.170	-28.457	77.675	1.00	46.14
6559	C	PHE	B	69	-22.300	-30.818	75.126	1.00	50.46
6560	O	PHE	B	69	-23.347	-30.320	75.538	1.00	50.05
6561	N	ASP	B	70	-22.216	-31.380	73.925	1.00	50.30
6562	CA	ASP	B	70	-23.421	-31.439	73.103	1.00	50.14
6563	CB	ASP	B	70	-23.127	-31.302	71.611	1.00	50.21
6564	CG	ASP	B	70	-22.075	-32.249	71.140	1.00	50.56
6565	OD1	ASP	B	70	-21.477	-31.992	70.065	1.00	51.10
6566	OD2	ASP	B	70	-21.787	-33.283	71.773	1.00	51.39
6567	C	ASP	B	70	-24.263	-32.666	73.439	1.00	49.78
6568	O	ASP	B	70	-25.246	-32.959	72.772	1.00	49.79
6569	N	GLU	B	71	-23.864	-33.362	74.499	1.00	49.75

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**FIGURE 3 DY**

A	B	C	D	E	F	G	H	I	J
6570	CA	GLU	B	71	-24.624	-34.478	75.050	1.00	49.63
6571	CB	GLU	B	71	-23.788	-35.753	75.098	1.00	49.75
6572	CG	GLU	B	71	-23.403	-36.345	73.757	1.00	50.10
6573	CD	GLU	B	71	-23.161	-37.839	73.867	1.00	50.97
6574	OE1	GLU	B	71	-22.363	-38.252	74.739	1.00	50.52
6575	OE2	GLU	B	71	-23.784	-38.602	73.095	1.00	51.93
6576	C	GLU	B	71	-24.996	-34.103	76.479	1.00	49.34
6577	O	GLU	B	71	-25.487	-34.931	77.247	1.00	49.41
6578	N	PHE	B	72	-24.736	-32.856	76.844	1.00	48.96
6579	CA	PHE	B	72	-25.026	-32.391	78.194	1.00	48.61
6580	CB	PHE	B	72	-24.496	-30.976	78.397	1.00	48.58
6581	CG	PHE	B	72	-24.533	-30.534	79.814	1.00	48.54
6582	CD1	PHE	B	72	-23.728	-31.149	80.756	1.00	48.14
6583	CE1	PHE	B	72	-23.758	-30.754	82.060	1.00	48.48
6584	CZ	PHE	B	72	-24.609	-29.739	82.454	1.00	49.56
6585	CE2	PHE	B	72	-25.425	-29.119	81.528	1.00	48.92
6586	CD2	PHE	B	72	-25.383	-29.520	80.214	1.00	48.44
6587	C	PHE	B	72	-26.512	-32.472	78.568	1.00	48.44
6588	O	PHE	B	72	-26.853	-32.800	79.704	1.00	48.48
6589	N	GLY	B	73	-27.393	-32.167	77.620	1.00	48.19
6590	CA	GLY	B	73	-28.821	-32.283	77.859	1.00	48.01
6591	C	GLY	B	73	-29.558	-30.962	78.005	1.00	47.98
6592	O	GLY	B	73	-30.791	-30.921	78.038	1.00	47.82
6593	N	HIS	B	74	-28.805	-29.874	78.112	1.00	47.47
6594	CA	HIS	B	74	-29.419	-28.565	78.248	1.00	47.23
6595	CB	HIS	B	74	-29.604	-28.214	79.726	1.00	47.25
6596	CG	HIS	B	74	-29.614	-29.405	80.626	1.00	46.37
6597	ND1	HIS	B	74	-30.766	-29.894	81.203	1.00	45.82
6598	CE1	HIS	B	74	-30.473	-30.956	81.932	1.00	46.66
6599	NE2	HIS	B	74	-29.171	-31.173	81.850	1.00	47.57
6600	CD2	HIS	B	74	-28.611	-30.216	81.038	1.00	46.71
6601	C	HIS	B	74	-28.451	-27.600	77.631	1.00	46.90
6602	O	HIS	B	74	-27.282	-27.940	77.447	1.00	46.76
6603	N	SER	B	75	-28.920	-26.404	77.305	1.00	46.46
6604	CA	SER	B	75	-28.026	-25.408	76.738	1.00	46.32
6605	CB	SER	B	75	-28.785	-24.375	75.902	1.00	46.54
6606	OG	SER	B	75	-29.882	-23.847	76.622	1.00	47.39
6607	C	SER	B	75	-27.268	-24.732	77.872	1.00	46.25
6608	O	SER	B	75	-27.832	-24.414	78.933	1.00	45.78
6609	N	ILE	B	76	-25.985	-24.512	77.631	1.00	45.86
6610	CA	ILE	B	76	-25.103	-23.945	78.618	1.00	45.54
6611	CB	ILE	B	76	-23.717	-24.560	78.426	1.00	45.97
6612	CG1	ILE	B	76	-23.835	-26.080	78.591	1.00	45.17
6613	CD1	ILE	B	76	-22.548	-26.771	78.905	1.00	44.42
6614	CG2	ILE	B	76	-22.693	-23.948	79.386	1.00	45.71
6615	C	ILE	B	76	-25.096	-22.432	78.520	1.00	45.32
6616	O	ILE	B	76	-24.657	-21.862	77.525	1.00	45.21
6617	N	ASN	B	77	-25.608	-21.779	79.561	1.00	44.93
6618	CA	ASN	B	77	-25.697	-20.332	79.556	1.00	44.21
6619	CB	ASN	B	77	-26.619	-19.827	80.652	1.00	44.24
6620	CG	ASN	B	77	-26.976	-18.376	80.453	1.00	45.26

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**FIGURE 3 DZ**

A	B	C	D	E	F	G	H	I	J
6621	OD1	ASN	B	77	-27.574	-18.024	79.439	1.00	46.47
6622	ND2	ASN	B	77	-26.574	-17.515	81.390	1.00	45.50
6623	C	ASN	B	77	-24.355	-19.649	79.697	1.00	43.73
6624	O	ASN	B	77	-24.052	-18.705	78.983	1.00	43.48
6625	N	ASP	B	78	-23.554	-20.120	80.640	1.00	43.45
6626	CA	ASP	B	78	-22.259	-19.525	80.864	1.00	43.13
6627	CB	ASP	B	78	-22.384	-18.321	81.797	1.00	43.38
6628	CG	ASP	B	78	-21.403	-17.230	81.458	1.00	43.83
6629	OD1	ASP	B	78	-20.268	-17.544	81.076	1.00	46.49
6630	OD2	ASP	B	78	-21.678	-16.022	81.507	1.00	47.24
6631	C	ASP	B	78	-21.324	-20.559	81.455	1.00	42.89
6632	O	ASP	B	78	-21.730	-21.673	81.776	1.00	43.02
6633	N	TYR	B	79	-20.061	-20.201	81.571	1.00	42.54
6634	CA	TYR	B	79	-19.096	-21.116	82.128	1.00	42.96
6635	CB	TYR	B	79	-18.338	-21.875	81.032	1.00	43.09
6636	CG	TYR	B	79	-17.394	-20.992	80.273	1.00	44.00
6637	CD1	TYR	B	79	-17.779	-20.393	79.074	1.00	45.46
6638	CE1	TYR	B	79	-16.913	-19.560	78.384	1.00	45.52
6639	CZ	TYR	B	79	-15.656	-19.310	78.903	1.00	45.23
6640	OH	TYR	B	79	-14.781	-18.484	78.237	1.00	46.02
6641	CE2	TYR	B	79	-15.264	-19.890	80.085	1.00	45.28
6642	CD2	TYR	B	79	-16.129	-20.723	80.761	1.00	44.62
6643	C	TYR	B	79	-18.138	-20.313	82.965	1.00	42.84
6644	O	TYR	B	79	-17.936	-19.115	82.738	1.00	42.71
6645	N	SER	B	80	-17.560	-20.969	83.956	1.00	42.90
6646	CA	SER	B	80	-16.600	-20.299	84.798	1.00	43.31
6647	CB	SER	B	80	-17.222	-19.882	86.122	1.00	42.93
6648	OG	SER	B	80	-16.279	-19.122	86.845	1.00	43.95
6649	C	SER	B	80	-15.433	-21.211	85.040	1.00	43.25
6650	O	SER	B	80	-15.581	-22.303	85.566	1.00	43.48
6651	N	ILE	B	81	-14.262	-20.744	84.666	1.00	43.80
6652	CA	ILE	B	81	-13.081	-21.550	84.817	1.00	44.61
6653	CB	ILE	B	81	-12.175	-21.418	83.580	1.00	44.62
6654	CG1	ILE	B	81	-12.982	-22.074	82.391	1.00	45.63
6655	CD1	ILE	B	81	-12.421	-21.598	81.025	1.00	48.10
6656	CG2	ILE	B	81	-10.861	-22.138	83.811	1.00	45.52
6657	C	ILE	B	81	-12.347	-21.291	86.125	1.00	44.73
6658	O	ILE	B	81	-12.005	-20.158	86.464	1.00	44.33
6659	N	SER	B	82	-12.179	-22.381	86.866	1.00	45.06
6660	CA	SER	B	82	-11.396	-22.434	88.085	1.00	45.20
6661	CB	SER	B	82	-11.103	-23.899	88.377	1.00	44.99
6662	OG	SER	B	82	-10.305	-24.031	89.520	1.00	47.54
6663	C	SER	B	82	-10.087	-21.672	87.890	1.00	44.93
6664	O	SER	B	82	-9.421	-21.833	86.869	1.00	44.86
6665	N	PRO	B	83	-9.708	-20.849	88.864	1.00	44.77
6666	CA	PRO	B	83	-8.490	-20.037	88.756	1.00	44.56
6667	CB	PRO	B	83	-8.406	-19.335	90.118	1.00	44.46
6668	CG	PRO	B	83	-9.741	-19.422	90.691	1.00	44.29
6669	CD	PRO	B	83	-10.398	-20.648	90.148	1.00	44.70
6670	C	PRO	B	83	-7.248	-20.897	88.554	1.00	44.43
6671	O	PRO	B	83	-6.257	-20.434	87.984	1.00	44.18



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**FIGURE 3 EA**

A	B	C	D	E	F	G	H	I	J
6672	N	ASP	B	84	-7.290	-22.137	89.023	1.00	44.38
6673	CA	ASP	B	84	-6.131	-23.010	88.852	1.00	44.64
6674	CB	ASP	B	84	-5.999	-23.998	90.007	1.00	44.39
6675	CG	ASP	B	84	-7.167	-24.944	90.091	1.00	45.05
6676	OD1	ASP	B	84	-8.038	-24.872	89.206	1.00	46.59
6677	OD2	ASP	B	84	-7.305	-25.791	90.998	1.00	45.80
6678	C	ASP	B	84	-6.214	-23.744	87.520	1.00	44.63
6679	O	ASP	B	84	-5.338	-24.529	87.190	1.00	44.63
6680	N	GLY	B	85	-7.272	-23.471	86.760	1.00	44.63
6681	CA	GLY	B	85	-7.465	-24.078	85.453	1.00	44.80
6682	C	GLY	B	85	-7.745	-25.573	85.485	1.00	45.07
6683	O	GLY	B	85	-7.631	-26.239	84.455	1.00	45.53
6684	N	GLN	B	86	-8.115	-26.100	86.653	1.00	44.42
6685	CA	GLN	B	86	-8.384	-27.524	86.805	1.00	44.00
6686	CB	GLN	B	86	-7.959	-27.995	88.198	1.00	44.18
6687	CG	GLN	B	86	-6.464	-27.868	88.466	1.00	44.95
6688	CD	GLN	B	86	-6.044	-28.519	89.772	1.00	46.30
6689	OE1	GLN	B	86	-6.805	-29.304	90.353	1.00	47.20
6690	NE2	GLN	B	86	-4.834	-28.200	90.239	1.00	45.35
6691	C	GLN	B	86	-9.849	-27.901	86.566	1.00	43.84
6692	O	GLN	B	86	-10.165	-29.024	86.140	1.00	43.25
6693	N	PHE	B	87	-10.750	-26.965	86.837	1.00	43.39
6694	CA	PHE	B	87	-12.166	-27.251	86.687	1.00	43.01
6695	CB	PHE	B	87	-12.822	-27.432	88.060	1.00	43.23
6696	CG	PHE	B	87	-12.291	-28.599	88.840	1.00	43.82
6697	CD1	PHE	B	87	-12.865	-29.850	88.709	1.00	43.21
6698	CE1	PHE	B	87	-12.386	-30.920	89.427	1.00	44.46
6699	CZ	PHE	B	87	-11.314	-30.759	90.287	1.00	43.15
6700	CE2	PHE	B	87	-10.735	-29.523	90.428	1.00	43.96
6701	CD2	PHE	B	87	-11.224	-28.444	89.709	1.00	43.67
6702	C	PHE	B	87	-12.906	-26.161	85.945	1.00	42.92
6703	O	PHE	B	87	-12.451	-25.018	85.846	1.00	42.77
6704	N	ILE	B	88	-14.074	-26.521	85.436	1.00	42.65
6705	CA	ILE	B	88	-14.914	-25.560	84.770	1.00	42.40
6706	CB	ILE	B	88	-14.816	-25.705	83.247	1.00	42.76
6707	CG1	ILE	B	88	-15.921	-24.882	82.576	1.00	43.27
6708	CD1	ILE	B	88	-15.661	-24.609	81.115	1.00	43.05
6709	CG2	ILE	B	88	-14.948	-27.143	82.845	1.00	42.96
6710	C	ILE	B	88	-16.339	-25.723	85.267	1.00	41.86
6711	O	ILE	B	88	-16.853	-26.835	85.410	1.00	41.80
6712	N	LEU	B	89	-16.960	-24.601	85.583	1.00	41.05
6713	CA	LEU	B	89	-18.324	-24.617	86.064	1.00	40.03
6714	CB	LEU	B	89	-18.508	-23.552	87.141	1.00	40.27
6715	CG	LEU	B	89	-19.862	-23.487	87.831	1.00	40.26
6716	CD1	LEU	B	89	-19.981	-22.168	88.553	1.00	41.65
6717	CD2	LEU	B	89	-20.041	-24.645	88.799	1.00	39.37
6718	C	LEU	B	89	-19.227	-24.319	84.889	1.00	39.65
6719	O	LEU	B	89	-19.009	-23.355	84.160	1.00	38.91
6720	N	LEU	B	90	-20.232	-25.160	84.697	1.00	39.35
6721	CA	LEU	B	90	-21.187	-24.955	83.635	1.00	39.46
6722	CB	LEU	B	90	-21.404	-26.247	82.845	1.00	39.49

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**FIGURE 3 EB**

A	B	C	D	E	F	G	H	I	J
6723	CG	LEU	B	90	-20.114	-26.900	82.323	1.00	40.77
6724	CD1	LEU	B	90	-20.330	-28.380	82.030	1.00	41.95
6725	CD2	LEU	B	90	-19.583	-26.185	81.088	1.00	41.64
6726	C	LEU	B	90	-22.490	-24.458	84.232	1.00	39.06
6727	O	LEU	B	90	-23.051	-25.067	85.142	1.00	39.14
6728	N	GLU	B	91	-22.965	-23.935	83.721	1.00	38.70
6729	CA	GLU	B	91	-24.212	-22.751	84.196	1.00	38.30
6730	CB	GLU	B	91	-24.028	-21.242	84.349	1.00	37.90
6731	CG	GLU	B	91	-25.179	-20.482	84.977	1.00	37.84
6732	CD	GLU	B	91	-24.851	-19.007	85.130	1.00	38.88
6733	OE1	GLU	B	91	-25.310	-18.200	84.279	1.00	39.94
6734	OE2	GLU	B	91	-24.127	-18.656	86.092	1.00	37.39
6735	C	GLU	B	91	-25.326	-23.063	83.201	1.00	37.98
6736	O	GLU	B	91	-25.174	-22.818	82.007	1.00	38.03
6737	N	TYR	B	92	-26.423	-23.635	83.693	1.00	37.65
6738	CA	TYR	B	92	-27.590	-23.931	82.862	1.00	37.66
6739	CB	TYR	B	92	-27.513	-25.332	82.232	1.00	37.50
6740	CG	TYR	B	92	-27.540	-26.511	83.182	1.00	36.81
6741	CD1	TYR	B	92	-26.466	-26.779	84.016	1.00	36.25
6742	CE1	TYR	B	92	-26.486	-27.871	84.870	1.00	37.27
6743	CZ	TYR	B	92	-27.586	-28.708	84.887	1.00	36.87
6744	OH	TYR	B	92	-27.602	-29.787	85.745	1.00	37.50
6745	CE2	TYR	B	92	-28.662	-28.468	84.049	1.00	35.25
6746	CD2	TYR	B	92	-28.632	-27.380	83.209	1.00	35.06
6747	C	TYR	B	92	-28.911	-23.702	83.608	1.00	37.66
6748	O	TYR	B	92	-28.907	-23.378	84.790	1.00	37.77
6749	N	ASN	B	93	-30.028	-23.875	82.913	1.00	38.10
6750	CA	ASN	B	93	-31.357	-23.557	83.451	1.00	38.81
6751	CB	ASN	B	93	-31.871	-24.624	84.420	1.00	39.42
6752	CG	ASN	B	93	-32.278	-25.913	83.716	1.00	40.81
6753	OD1	ASN	B	93	-32.194	-26.024	82.491	1.00	43.68
6754	ND2	ASN	B	93	-32.711	-26.892	84.490	1.00	40.78
6755	C	ASN	B	93	-31.394	-22.166	84.099	1.00	38.86
6756	O	ASN	B	93	-32.037	-21.948	85.137	1.00	39.17
6757	N	TYR	B	94	-30.686	-21.243	83.464	1.00	38.00
6758	CA	TYR	B	94	-30.645	-19.861	83.856	1.00	37.85
6759	CB	TYR	B	94	-29.830	-19.090	82.822	1.00	37.50
6760	CG	TYR	B	94	-29.996	-17.591	82.885	1.00	37.18
6761	CD1	TYR	B	94	-29.226	-16.832	83.760	1.00	35.96
6762	CE1	TYR	B	94	-29.359	-15.461	83.831	1.00	34.63
6763	CZ	TYR	B	94	-30.263	-14.825	83.021	1.00	34.93
6764	OH	TYR	B	94	-30.358	-13.454	83.112	1.00	36.76
6765	CE2	TYR	B	94	-31.052	-15.549	82.126	1.00	34.11
6766	CD2	TYR	B	94	-30.912	-16.929	82.064	1.00	35.21
6767	C	TYR	B	94	-32.059	-19.294	83.923	1.00	37.99
6768	O	TYR	B	94	-32.809	-19.377	82.952	1.00	38.37
6769	N	VAL	B	95	-32.427	-18.748	85.081	1.00	37.75
6770	CA	VAL	B	95	-33.712	-18.077	85.251	1.00	37.49
6771	CB	VAL	B	95	-34.715	-18.902	86.100	1.00	37.70
6772	CG1	VAL	B	95	-36.058	-18.167	86.237	1.00	37.67
6773	CG2	VAL	B	95	-34.960	-20.290	85.471	1.00	37.86

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**FIGURE 3 EC**

A	B	C	D	E	F	G	H	I	J
6774	C	VAL	B	95	-33.419	-16.716	85.885	1.00	37.08
6775	O	VAL	B	95	-33.012	-16.627	87.046	1.00	37.66
6776	N	LYS	B	96	-33.583	-15.663	85.097	1.00	36.23
6777	CA	LYS	B	96	-33.286	-14.309	85.554	1.00	35.28
6778	CB	LYS	B	96	-33.368	-13.312	84.392	1.00	35.17
6779	CG	LYS	B	96	-33.139	-11.886	84.831	1.00	35.12
6780	CD	LYS	B	96	-33.255	-10.901	83.677	1.00	36.00
6781	CE	LYS	B	96	-33.274	-9.465	84.177	1.00	35.60
6782	NZ	LYS	B	96	-34.266	-9.245	85.303	1.00	33.79
6783	C	LYS	B	96	-34.190	-13.831	86.676	1.00	34.41
6784	O	LYS	B	96	-35.374	-14.163	86.721	1.00	34.08
6785	N	GLN	B	97	-33.608	-13.074	87.600	1.00	33.47
6786	CA	GLN	B	97	-34.378	-12.439	88.655	1.00	32.58
6787	CB	GLN	B	97	-33.836	-12.785	90.027	1.00	32.88
6788	CG	GLN	B	97	-34.818	-12.535	91.138	1.00	35.20
6789	CD	GLN	B	97	-34.220	-12.791	92.519	1.00	38.14
6790	OE1	GLN	B	97	-34.839	-13.460	93.339	1.00	39.28
6791	NE2	GLN	B	97	-33.020	-12.250	92.776	1.00	38.20
6792	C	GLN	B	97	-34.312	-10.945	88.410	1.00	31.47
6793	O	GLN	B	97	-34.973	-10.451	87.516	1.00	30.40
6794	N	TRP	B	98	-33.485	-10.225	89.166	1.00	30.46
6795	CA	TRP	B	98	-33.424	-8.785	88.967	1.00	29.28
6796	CB	TRP	B	98	-33.297	-8.019	90.281	1.00	28.77
6797	CG	TRP	B	98	-34.248	-8.527	91.306	1.00	26.51
6798	CD1	TRP	B	98	-33.959	-8.854	92.601	1.00	26.16
6799	NE1	TRP	B	98	-35.079	-9.340	93.228	1.00	26.15
6800	CE2	TRP	B	98	-36.128	-9.317	92.345	1.00	23.81
6801	CD2	TRP	B	98	-35.638	-8.826	91.121	1.00	24.92
6802	CE3	TRP	B	98	-36.523	-8.722	90.042	1.00	22.52
6803	CZ3	TRP	B	98	-37.826	-9.097	90.222	1.00	22.86
6804	CH2	TRP	B	98	-38.283	-9.577	91.456	1.00	22.77
6805	CZ2	TRP	B	98	-37.449	-9.693	92.522	1.00	23.43
6806	C	TRP	B	98	-32.365	-8.427	87.951	1.00	29.53
6807	O	TRP	B	98	-32.213	-9.127	86.955	1.00	29.73
6808	N	ARG	B	99	-31.652	-7.333	88.168	1.00	29.39
6809	CA	ARG	B	99	-30.689	-6.910	87.182	1.00	29.98
6810	CB	ARG	B	99	-30.312	-5.467	87.417	1.00	30.83
6811	CG	ARG	B	99	-29.466	-4.866	86.315	1.00	31.29
6812	CD	ARG	B	99	-28.821	-3.579	86.759	1.00	33.85
6813	NE	ARG	B	99	-29.819	-2.565	87.063	1.00	35.27
6814	CZ	ARG	B	99	-30.299	-1.733	86.152	1.00	36.76
6815	NH1	ARG	B	99	-29.860	-1.832	84.897	1.00	36.31
6816	NH2	ARG	B	99	-31.207	-0.812	86.483	1.00	34.65
6817	C	ARG	B	99	-29.428	-7.755	87.182	1.00	30.65
6818	O	ARG	B	99	-28.776	-7.897	86.138	1.00	30.42
6819	N	HIS	B	100	-29.068	-8.302	88.348	1.00	30.49
6820	CA	HIS	B	100	-27.835	-9.080	88.446	1.00	30.33
6821	CB	HIS	B	100	-26.832	-8.458	89.439	1.00	29.88
6822	CG	HIS	B	100	-26.496	-7.031	89.151	1.00	30.52
6823	ND1	HIS	B	100	-25.635	-6.657	88.142	1.00	31.38
6824	CE1	HIS	B	100	-25.526	-5.338	88.124	1.00	30.86

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**FIGURE 3 ED**

A	B	C	D	E	F	G	H	I	J
6825	NE2	HIS	B	100	-26.284	-4.844	89.087	1.00	30.38
6826	CD2	HIS	B	100	-26.903	-5.881	89.744	1.00	30.25
6827	C	HIS	B	100	-28.152	-10.479	88.890	1.00	30.15
6828	O	HIS	B	100	-27.505	-11.423	88.467	1.00	30.34
6829	N	SER	B	101	-29.149	-10.603	89.753	1.00	30.24
6830	CA	SER	B	101	-29.505	-11.889	90.311	1.00	30.82
6831	CB	SER	B	101	-30.405	-11.711	91.531	1.00	30.55
6832	OG	SER	B	101	-31.571	-10.973	91.193	1.00	31.73
6833	C	SER	B	101	-30.205	-12.801	89.313	1.00	31.14
6834	O	SER	B	101	-30.886	-12.347	88.393	1.00	30.27
6835	N	TYR	B	102	-30.039	-14.097	89.536	1.00	32.33
6836	CA	TYR	B	102	-30.678	-15.117	88.726	1.00	33.64
6837	CB	TYR	B	102	-30.112	-15.152	87.308	1.00	33.16
6838	CG	TYR	B	102	-28.653	-15.523	87.213	1.00	32.32
6839	CD1	TYR	B	102	-28.248	-16.854	87.199	1.00	31.87
6840	CE1	TYR	B	102	-26.908	-17.191	87.082	1.00	31.29
6841	CZ	TYR	B	102	-25.970	-16.189	86.985	1.00	31.61
6842	OH	TYR	B	102	-24.636	-16.496	86.884	1.00	33.08
6843	CE2	TYR	B	102	-26.350	-14.867	86.990	1.00	31.84
6844	CD2	TYR	B	102	-27.679	-14.539	87.107	1.00	31.76
6845	C	TYR	B	102	-30.451	-16.455	89.376	1.00	34.99
6846	O	TYR	B	102	-29.503	-16.636	90.138	1.00	35.19
6847	N	THR	B	103	-31.333	-17.386	89.053	1.00	35.94
6848	CA	THR	B	103	-31.259	-18.732	89.557	1.00	37.26
6849	CB	THR	B	103	-32.659	-19.120	90.044	1.00	37.50
6850	OG1	THR	B	103	-32.692	-18.991	91.474	1.00	39.59
6851	CG2	THR	B	103	-32.936	-20.568	89.817	1.00	37.87
6852	C	THR	B	103	-30.711	-19.665	88.458	1.00	37.49
6853	O	THR	B	103	-30.814	-19.348	87.269	1.00	37.12
6854	N	ALA	B	104	-30.094	-20.785	88.845	1.00	37.83
6855	CA	ALA	B	104	-29.508	-21.679	87.849	1.00	38.47
6856	CB	ALA	B	104	-28.405	-20.973	87.096	1.00	38.13
6857	C	ALA	B	104	-28.981	-23.002	88.376	1.00	39.12
6858	O	ALA	B	104	-28.700	-23.158	89.569	1.00	40.13
6859	N	SER	B	105	-28.844	-23.958	87.463	1.00	39.45
6860	CA	SER	B	105	-28.279	-25.265	87.784	1.00	38.93
6861	CB	SER	B	105	-28.967	-26.388	87.000	1.00	38.72
6862	OG	SER	B	105	-30.289	-26.612	87.469	1.00	37.35
6863	C	SER	B	105	-26.812	-25.186	87.430	1.00	39.17
6864	O	SER	B	105	-26.407	-24.335	86.644	1.00	38.98
6865	N	TYR	B	106	-26.017	-26.061	88.030	1.00	39.50
6866	CA	TYR	B	106	-24.587	-26.032	87.826	1.00	40.02
6867	CB	TYR	B	106	-23.906	-25.222	88.939	1.00	39.62
6868	CG	TYR	B	106	-24.238	-23.756	88.900	1.00	37.80
6869	CD1	TYR	B	106	-25.313	-23.249	89.613	1.00	35.67
6870	CE1	TYR	B	106	-25.624	-21.926	89.563	1.00	34.50
6871	CZ	TYR	B	106	-24.861	-21.084	88.782	1.00	34.06
6872	OH	TYR	B	106	-25.145	-19.752	88.730	1.00	36.54
6873	CE2	TYR	B	106	-23.805	-21.557	88.064	1.00	35.43
6874	CD2	TYR	B	106	-23.499	-22.887	88.117	1.00	36.64
6875	C	TYR	B	106	-23.996	-27.418	87.828	1.00	40.90

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**FIGURE 3 EE**

A	B	C D E	F	G	H	I	J
6876	O	TYR B 106	-24.373	-28.273	88.614	1.00	40.67
6877	N	ASP B 107	-23.063	-27.639	86.926	1.00	42.17
6878	CA	ASP B 107	-22.315	-28.867	86.957	1.00	43.53
6879	CB	ASP B 107	-22.827	-29.878	85.936	1.00	43.46
6880	CG	ASP B 107	-24.093	-30.557	86.412	1.00	44.94
6881	OD1	ASP B 107	-23.981	-31.578	87.121	1.00	46.31
6882	OD2	ASP B 107	-25.245	-30.121	86.176	1.00	46.24
6883	C	ASP B 107	-20.869	-28.474	86.785	1.00	44.26
6884	O	ASP B 107	-20.556	-27.418	86.240	1.00	44.38
6885	N	ILE B 108	-19.998	-29.304	87.324	1.00	45.38
6886	CA	ILE B 108	-18.583	-29.033	87.323	1.00	46.41
6887	CB	ILE B 108	-18.060	-29.125	88.771	1.00	46.40
6888	CG1	ILE B 108	-18.833	-28.147	89.671	1.00	45.78
6889	CD1	ILE B 108	-18.561	-28.314	91.151	1.00	44.16
6890	CG2	ILE B 108	-16.566	-28.900	88.811	1.00	45.32
6891	C	ILE B 108	-17.921	-30.080	86.460	1.00	47.16
6892	O	ILE B 108	-18.187	-31.264	86.609	1.00	47.27
6893	N	TYR B 109	-17.072	-29.632	85.550	1.00	48.10
6894	CA	TYR B 109	-16.373	-30.529	84.655	1.00	49.27
6895	CB	TYR B 109	-16.543	-30.057	83.207	1.00	49.41
6896	CG	TYR B 109	-16.012	-31.006	82.156	1.00	49.74
6897	CD1	TYR B 109	-16.617	-32.232	81.928	1.00	50.27
6898	CE1	TYR B 109	-16.143	-33.098	80.968	1.00	50.21
6899	CZ	TYR B 109	-15.052	-32.742	80.213	1.00	50.72
6900	OH	TYR B 109	-14.575	-33.604	79.255	1.00	51.51
6901	CE2	TYR B 109	-14.435	-31.529	80.410	1.00	51.16
6902	CD2	TYR B 109	-14.917	-30.667	81.380	1.00	50.92
6903	C	TYR B 109	-14.902	-30.554	85.023	1.00	50.04
6904	O	TYR B 109	-14.260	-29.504	85.144	1.00	49.43
6905	N	ASP B 110	-14.382	-31.762	85.217	1.00	51.21
6906	CA	ASP B 110	-12.966	-31.953	85.498	1.00	52.87
6907	CB	ASP B 110	-12.739	-33.336	86.108	1.00	53.03
6908	CG	ASP B 110	-11.404	-33.455	86.801	1.00	52.86
6909	OD1	ASP B 110	-10.387	-33.066	86.185	1.00	52.39
6910	OD2	ASP B 110	-11.276	-33.931	87.953	1.00	52.82
6911	C	ASP B 110	-12.228	-31.823	84.170	1.00	53.82
6912	O	ASP B 110	-12.520	-32.564	83.241	1.00	54.01
6913	N	LEU B 111	-11.296	-30.878	84.071	1.00	55.10
6914	CA	LEU B 111	-10.588	-30.636	82.813	1.00	56.51
6915	CB	LEU B 111	-9.883	-29.279	82.828	1.00	56.48
6916	CG	LEU B 111	-10.773	-28.033	82.785	1.00	56.39
6917	CD1	LEU B 111	-11.350	-27.840	81.411	1.00	55.96
6918	CD2	LEU B 111	-9.981	-26.811	83.194	1.00	56.60
6919	C	LEU B 111	-9.580	-31.711	82.450	1.00	57.82
6920	O	LEU B 111	-9.385	-32.009	81.270	1.00	58.49
6921	N	ASN B 112	-8.918	-32.280	83.451	1.00	59.18
6922	CA	ASN B 112	-7.915	-33.303	83.172	1.00	60.19
6923	CB	ASN B 112	-6.714	-33.190	84.117	1.00	60.53
6924	CG	ASN B 112	-5.614	-32.284	83.556	1.00	62.30
6925	OD1	ASN B 112	-4.745	-32.736	82.791	1.00	62.20
6926	ND2	ASN B 112	-5.649	-30.997	83.930	1.00	63.29

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**FIGURE 3 EF**

A	B	C	D	E	F	G	H	I	J
6927	C	ASN	B	112	-8.495	-34.715	83.115	1.00	60.34
6928	O	ASN	B	112	-8.107	-35.511	82.264	1.00	60.68
6929	N	LYS	B	113	-9.423	-35.035	84.008	1.00	60.48
6930	CA	LYS	B	113	-10.118	-36.313	83.905	1.00	60.64
6931	CB	LYS	B	113	-10.844	-36.657	85.205	1.00	60.83
6932	CG	LYS	B	113	-10.004	-37.066	86.413	1.00	62.13
6933	CD	LYS	B	113	-10.942	-37.688	87.465	1.00	64.05
6934	CE	LYS	B	113	-10.416	-37.589	88.902	1.00	66.34
6935	NZ	LYS	B	113	-9.645	-38.801	89.354	1.00	67.59
6936	C	LYS	B	113	-11.191	-36.148	82.832	1.00	60.46
6937	O	LYS	B	113	-11.993	-37.053	82.601	1.00	60.41
6938	N	ARG	B	114	-11.190	-34.995	82.165	1.00	60.17
6939	CA	ARG	B	114	-12.316	-34.606	81.314	1.00	60.11
6940	CB	ARG	B	114	-11.994	-34.453	79.816	1.00	60.21
6941	CG	ARG	B	114	-10.813	-35.185	79.235	1.00	61.19
6942	CD	ARG	B	114	-10.360	-34.544	77.918	1.00	62.98
6943	NE	ARG	B	114	-11.468	-33.807	77.302	1.00	64.76
6944	CZ	ARG	B	114	-11.630	-32.481	77.350	1.00	65.35
6945	NH1	ARG	B	114	-10.744	-31.708	77.969	1.00	66.06
6946	NH2	ARG	B	114	-12.685	-31.923	76.771	1.00	64.96
6947	C	ARG	B	114	-13.610	-35.388	81.568	1.00	59.77
6948	O	ARG	B	114	-14.127	-36.073	80.692	1.00	59.60
6949	N	GLN	B	115	-14.136	-35.246	82.780	1.00	59.44
6950	CA	GLN	B	115	-15.370	-35.914	83.163	1.00	59.28
6951	CB	GLN	B	115	-15.078	-37.228	83.892	1.00	59.10
6952	CG	GLN	B	115	-15.056	-38.431	82.967	1.00	59.99
6953	CD	GLN	B	115	-14.836	-39.744	83.704	1.00	60.27
6954	OE1	GLN	B	115	-14.169	-39.776	84.747	1.00	58.63
6955	NE2	GLN	B	115	-15.394	-40.829	83.164	1.00	60.16
6956	C	GLN	B	115	-16.287	-35.036	84.009	1.00	58.99
6957	O	GLN	B	115	-15.839	-34.154	84.739	1.00	59.02
6958	N	LEU	B	116	-17.581	-35.297	83.903	1.00	58.68
6959	CA	LEU	B	116	-18.575	-34.542	84.632	1.00	58.46
6960	CB	LEU	B	116	-19.923	-34.710	83.942	1.00	58.33
6961	CG	LEU	B	116	-20.862	-33.510	83.813	1.00	58.73
6962	CD1	LEU	B	116	-21.899	-33.821	82.741	1.00	57.81
6963	CD2	LEU	B	116	-20.089	-32.234	83.466	1.00	57.82
6964	C	LEU	B	116	-18.666	-35.070	86.054	1.00	58.39
6965	O	LEU	B	116	-19.117	-36.195	86.274	1.00	58.73
6966	N	ILE	B	117	-18.229	-34.293	87.032	1.00	57.82
6967	CA	ILE	B	117	-18.391	-34.772	88.391	1.00	57.41
6968	CB	ILE	B	117	-18.017	-33.702	89.414	1.00	57.29
6969	CG1	ILE	B	117	-16.519	-33.757	89.702	1.00	57.24
6970	CD1	ILE	B	117	-15.655	-33.406	88.533	1.00	56.98
6971	CG2	ILE	B	117	-18.786	-33.919	90.706	1.00	56.69
6972	C	ILE	B	117	-19.858	-35.143	88.508	1.00	57.25
6973	O	ILE	B	117	-20.719	-34.360	88.128	1.00	57.34
6974	N	THR	B	118	-20.147	-36.348	88.989	1.00	57.01
6975	CA	THR	B	118	-21.532	-36.788	89.134	1.00	56.55
6976	CB	THR	B	118	-21.791	-38.055	88.312	1.00	56.71
6977	OG1	THR	B	118	-20.921	-39.100	88.771	1.00	56.05

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**FIGURE 3 EG**

A	B	C	D	E	F	G	H	I	J
6978	CG2	THR	B	118	-21.387	-37.839	86.857	1.00	56.38
6979	C	THR	B	118	-21.827	-37.078	90.586	1.00	56.40
6980	O	THR	B	118	-22.859	-37.649	90.926	1.00	56.71
6981	N	GLU	B	119	-20.902	-36.694	91.448	1.00	56.00
6982	CA	GLU	B	119	-21.063	-36.923	92.868	1.00	55.83
6983	CB	GLU	B	119	-19.891	-37.765	93.396	1.00	56.17
6984	CG	GLU	B	119	-19.526	-38.945	92.500	1.00	57.93
6985	CD	GLU	B	119	-18.218	-39.614	92.891	1.00	60.54
6986	OE1	GLU	B	119	-17.174	-38.922	92.958	1.00	60.51
6987	OE2	GLU	B	119	-18.233	-40.844	93.130	1.00	62.65
6988	C	GLU	B	119	-21.108	-35.570	93.569	1.00	55.02
6989	O	GLU	B	119	-20.341	-34.673	93.240	1.00	54.89
6990	N	GLU	B	120	-22.021	-35.419	94.517	1.00	54.26
6991	CA	GLU	B	120	-22.074	-34.198	95.304	1.00	53.96
6992	CB	GLU	B	120	-20.765	-34.036	96.075	1.00	54.29
6993	CG	GLU	B	120	-20.763	-34.643	97.469	1.00	56.02
6994	CD	GLU	B	120	-22.065	-35.326	97.851	1.00	58.53
6995	OE1	GLU	B	120	-22.027	-36.523	98.226	1.00	58.50
6996	OE2	GLU	B	120	-23.129	-34.659	97.806	1.00	59.72
6997	C	GLU	B	120	-22.325	-32.967	94.441	1.00	52.94
6998	O	GLU	B	120	-21.706	-31.922	94.634	1.00	53.11
6999	N	ARG	B	121	-23.241	-33.105	93.494	1.00	51.55
7000	CA	ARG	B	121	-23.581	-32.028	92.581	1.00	50.21
7001	CB	ARG	B	121	-24.596	-32.536	91.547	1.00	50.55
7002	CG	ARG	B	121	-24.025	-33.534	90.533	1.00	51.61
7003	CD	ARG	B	121	-25.071	-34.250	89.676	1.00	52.90
7004	NE	ARG	B	121	-25.728	-33.354	88.726	1.00	54.69
7005	CZ	ARG	B	121	-26.849	-33.649	88.072	1.00	55.41
7006	NH1	ARG	B	121	-27.442	-34.821	88.261	1.00	56.17
7007	NH2	ARG	B	121	-27.383	-32.774	87.229	1.00	55.38
7008	C	ARG	B	121	-24.147	-30.810	93.305	1.00	48.76
7009	O	ARG	B	121	-24.804	-30.932	94.329	1.00	48.32
7010	N	ILE	B	122	-23.877	-29.633	92.758	1.00	47.49
7011	CA	ILE	B	122	-24.439	-28.393	93.269	1.00	46.10
7012	CB	ILE	B	122	-23.831	-27.210	92.510	1.00	46.08
7013	CG1	ILE	B	122	-22.351	-27.091	92.871	1.00	44.41
7014	CD1	ILE	B	122	-21.581	-26.147	92.013	1.00	43.82
7015	CG2	ILE	B	122	-24.581	-25.917	92.815	1.00	45.57
7016	C	ILE	B	122	-25.942	-28.472	93.058	1.00	45.48
7017	O	ILE	B	122	-26.392	-28.918	92.018	1.00	45.33
7018	N	PRO	B	123	-26.725	-28.056	94.044	1.00	45.04
7019	CA	PRO	B	123	-28.186	-28.200	93.968	1.00	44.70
7020	CB	PRO	B	123	-28.668	-27.694	95.333	1.00	44.69
7021	CG	PRO	B	123	-27.444	-27.543	96.176	1.00	44.44
7022	CD	PRO	B	123	-26.281	-27.390	95.277	1.00	44.63
7023	C	PRO	B	123	-28.804	-27.345	92.869	1.00	44.69
7024	O	PRO	B	123	-28.191	-26.384	92.411	1.00	44.61
7025	N	ASN	B	124	-30.005	-27.718	92.444	1.00	44.83
7026	CA	ASN	B	124	-30.756	-26.949	91.464	1.00	44.83
7027	CB	ASN	B	124	-31.930	-27.771	90.895	1.00	45.24
7028	CG	ASN	B	124	-31.488	-28.820	89.852	1.00	46.78

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**FIGURE 3 EH**

A	B	C	D	E	F	G	H	I	J
7029	OD1	ASN	B	124	-30.545	-28.609	89.086	1.00	46.82
7030	ND2	ASN	B	124	-32.183	-29.951	89.826	1.00	51.91
7031	C	ASN	B	124	-31.267	-25.709	92.195	1.00	44.27
7032	O	ASN	B	124	-31.258	-25.674	93.435	1.00	44.24
7033	N	ASN	B	125	-31.707	-24.700	91.443	1.00	42.84
7034	CA	ASN	B	125	-32.204	-23.463	92.038	1.00	41.49
7035	CB	ASN	B	125	-33.499	-23.695	92.826	1.00	41.55
7036	CG	ASN	B	125	-34.585	-24.378	91.988	1.00	42.05
7037	OD1	ASN	B	125	-34.849	-25.575	92.150	1.00	41.18
7038	ND2	ASN	B	125	-35.223	-23.615	91.100	1.00	40.95
7039	C	ASN	B	125	-31.160	-22.801	92.926	1.00	40.69
7040	O	ASN	B	125	-31.486	-22.187	93.946	1.00	40.65
7041	N	THR	B	126	-29.900	-22.936	92.532	1.00	39.37
7042	CA	THR	B	126	-28.803	-22.297	93.234	1.00	37.95
7043	CB	THR	B	126	-27.470	-22.964	92.857	1.00	37.98
7044	OG1	THR	B	126	-27.427	-24.281	93.425	1.00	38.33
7045	CG2	THR	B	126	-26.287	-22.245	93.495	1.00	36.03
7046	C	THR	B	126	-28.788	-20.811	92.888	1.00	37.31
7047	O	THR	B	126	-28.852	-20.425	91.721	1.00	37.04
7048	N	GLN	B	127	-28.688	-19.988	93.922	1.00	36.34
7049	CA	GLN	B	127	-28.750	-18.553	93.786	1.00	34.92
7050	CB	GLN	B	127	-29.300	-17.967	95.080	1.00	34.94
7051	CG	GLN	B	127	-30.650	-18.559	95.437	1.00	33.55
7052	CD	GLN	B	127	-30.989	-18.453	96.916	1.00	32.92
7053	OE1	GLN	B	127	-30.300	-19.048	97.761	1.00	31.14
7054	NE2	GLN	B	127	-32.066	-17.725	97.232	1.00	26.86
7055	C	GLN	B	127	-27.435	-17.907	93.400	1.00	35.02
7056	O	GLN	B	127	-27.420	-16.786	92.882	1.00	35.11
7057	N	TRP	B	128	-26.328	-18.606	93.607	1.00	34.94
7058	CA	TRP	B	128	-25.023	-18.019	93.295	1.00	34.86
7059	CB	TRP	B	128	-24.850	-16.732	94.091	1.00	34.91
7060	CG	TRP	B	128	-23.622	-16.029	93.737	1.00	36.11
7061	CD1	TRP	B	128	-22.448	-16.054	94.420	1.00	37.36
7062	NE1	TRP	B	128	-21.512	-15.288	93.768	1.00	39.73
7063	CE2	TRP	B	128	-22.077	-14.756	92.640	1.00	37.82
7064	OD2	TRP	B	128	-23.406	-15.204	92.589	1.00	36.92
7065	CE3	TRP	B	128	-24.204	-14.796	91.522	1.00	37.01
7066	CZ3	TRP	B	128	-23.664	-13.971	90.566	1.00	37.97
7067	CH2	TRP	B	128	-22.337	-13.547	90.642	1.00	38.55
7068	CZ2	TRP	B	128	-21.529	-13.923	91.673	1.00	38.95
7069	C	TRP	B	128	-23.831	-18.947	93.580	1.00	34.89
7070	O	TRP	B	128	-23.821	-19.684	94.556	1.00	34.10
7071	N	VAL	B	129	-22.814	-18.878	92.735	1.00	35.22
7072	CA	VAL	B	129	-21.641	-19.718	92.894	1.00	36.27
7073	CB	VAL	B	129	-21.650	-20.924	91.923	1.00	36.44
7074	CG1	VAL	B	129	-22.979	-21.647	91.958	1.00	35.53
7075	CG2	VAL	B	129	-20.506	-21.876	92.259	1.00	36.07
7076	C	VAL	B	129	-20.397	-18.930	92.570	1.00	36.85
7077	O	VAL	B	129	-20.363	-18.203	91.590	1.00	36.67
7078	N	THR	B	130	-19.365	-19.070	93.391	1.00	38.07
7079	CA	THR	B	130	-18.110	-18.405	93.097	1.00	39.09



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**FIGURE 3 EI**

A	B	C	D	E	F	G	H	I	J
7080	CB	THR	B	130	-18.055	-16.988	93.726	1.00	39.16
7081	OG1	THR	B	130	-16.698	-16.512	93.767	1.00	39.50
7082	CG2	THR	B	130	-18.459	-17.029	95.170	1.00	38.85
7083	C	THR	B	130	-16.925	-19.254	93.529	1.00	40.29
7084	O	THR	B	130	-16.907	-19.819	94.619	1.00	39.97
7085	N	TRP	B	131	-15.949	-19.351	92.633	1.00	41.63
7086	CA	TRP	B	131	-14.710	-20.056	92.894	1.00	42.33
7087	CB	TRP	B	131	-13.844	-20.063	91.629	1.00	42.18
7088	CG	TRP	B	131	-14.321	-20.989	90.566	1.00	42.06
7089	CD1	TRP	B	131	-14.758	-20.654	89.322	1.00	41.70
7090	NE1	TRP	B	131	-15.122	-21.782	88.630	1.00	41.69
7091	CE2	TRP	B	131	-14.902	-22.880	89.423	1.00	40.84
7092	CD2	TRP	B	131	-14.399	-22.415	90.650	1.00	40.74
7093	CE3	TRP	B	131	-14.093	-23.348	91.644	1.00	39.43
7094	CZ3	TRP	B	131	-14.306	-24.676	91.393	1.00	40.01
7095	CH2	TRP	B	131	-14.812	-25.108	90.157	1.00	39.68
7096	CZ2	TRP	B	131	-15.112	-24.226	89.164	1.00	38.53
7097	C	TRP	B	131	-13.941	-19.286	93.944	1.00	43.25
7098	O	TRP	B	131	-14.234	-18.124	94.224	1.00	43.84
7099	N	SER	B	132	-12.945	-19.947	94.513	1.00	43.68
7100	CA	SER	B	132	-11.971	-19.320	95.379	1.00	44.11
7101	CB	SER	B	132	-11.098	-20.425	95.960	1.00	44.06
7102	OG	SER	B	132	-10.138	-19.911	96.860	1.00	47.01
7103	C	SER	B	132	-11.143	-18.457	94.431	1.00	43.83
7104	O	SER	B	132	-11.057	-18.779	93.257	1.00	44.43
7105	N	PRO	B	133	-10.527	-17.374	94.887	1.00	43.67
7106	CA	PRO	B	133	-9.717	-16.553	93.985	1.00	43.66
7107	CB	PRO	B	133	-9.345	-15.348	94.850	1.00	43.91
7108	CG	PRO	B	133	-10.322	-15.376	95.955	1.00	43.41
7109	CD	PRO	B	133	-10.555	-16.824	96.247	1.00	43.61
7110	C	PRO	B	133	-8.459	-17.285	93.519	1.00	43.78
7111	O	PRO	B	133	-7.808	-16.837	92.583	1.00	43.86
7112	N	VAL	B	134	-8.114	-18.380	94.186	1.00	43.75
7113	CA	VAL	B	134	-6.991	-19.217	93.789	1.00	43.61
7114	CB	VAL	B	134	-5.730	-18.897	94.583	1.00	43.86
7115	CG1	VAL	B	134	-5.211	-17.508	94.250	1.00	44.28
7116	CG2	VAL	B	134	-6.005	-19.016	96.067	1.00	44.26
7117	C	VAL	B	134	-7.381	-20.653	94.072	1.00	43.56
7118	O	VAL	B	134	-8.178	-20.909	94.967	1.00	43.88
7119	N	GLY	B	135	-6.834	-21.597	93.314	1.00	43.50
7120	CA	GLY	B	135	-7.178	-22.990	93.506	1.00	42.57
7121	C	GLY	B	135	-8.539	-23.284	92.907	1.00	42.42
7122	O	GLY	B	135	-8.846	-22.832	91.806	1.00	42.51
7123	N	HIS	B	136	-9.371	-24.031	93.623	1.00	41.88
7124	CA	HIS	B	136	-10.669	-24.399	93.083	1.00	41.28
7125	CB	HIS	B	136	-10.556	-25.635	92.205	1.00	41.09
7126	CG	HIS	B	136	-9.837	-26.762	92.865	1.00	41.42
7127	ND1	HIS	B	136	-8.475	-26.936	92.756	1.00	41.80
7128	CE1	HIS	B	136	-8.113	-27.995	93.457	1.00	43.07
7129	NE2	HIS	B	136	-9.188	-28.501	94.034	1.00	42.44
7130	CD2	HIS	B	136	-10.280	-27.747	93.680	1.00	41.18

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**FIGURE 3 EJ**

A	B	C	D	E	F	G	H	I	J
7131	C	HIS	B	136	-11.668	-24.674	94.168	1.00	41.24
7132	O	HIS	B	136	-12.519	-25.568	94.030	1.00	41.24
7133	N	LYS	B	137	-11.558	-23.930	95.262	1.00	41.14
7134	CA	LYS	B	137	-12.547	-24.032	96.320	1.00	41.09
7135	CB	LYS	B	137	-12.096	-23.305	97.583	1.00	41.89
7136	CG	LYS	B	137	-11.586	-24.250	98.657	1.00	43.47
7137	CD	LYS	B	137	-10.276	-23.772	99.244	1.00	46.36
7138	CE	LYS	B	137	-10.460	-22.700	100.280	1.00	48.20
7139	NZ	LYS	B	137	-9.125	-22.281	100.849	1.00	48.67
7140	C	LYS	B	137	-13.805	-23.420	95.762	1.00	40.13
7141	O	LYS	B	137	-13.753	-22.688	94.789	1.00	39.54
7142	N	LEU	B	138	-14.928	-23.702	96.401	1.00	39.56
7143	CA	LEU	B	138	-16.208	-23.294	95.882	1.00	38.74
7144	CB	LEU	B	138	-16.834	-24.522	95.237	1.00	39.10
7145	CG	LEU	B	138	-17.667	-24.421	93.977	1.00	38.93
7146	CD1	LEU	B	138	-17.088	-23.365	93.050	1.00	38.82
7147	CD2	LEU	B	138	-17.641	-25.774	93.319	1.00	38.89
7148	C	LEU	B	138	-17.163	-22.812	96.960	1.00	38.21
7149	O	LEU	B	138	-17.330	-23.470	97.984	1.00	38.26
7150	N	ALA	B	139	-17.811	-21.678	96.721	1.00	37.04
7151	CA	ALA	B	139	-18.859	-21.213	97.619	1.00	36.37
7152	CB	ALA	B	139	-18.436	-19.952	98.361	1.00	36.36
7153	C	ALA	B	139	-20.131	-20.948	96.819	1.00	36.06
7154	O	ALA	B	139	-20.096	-20.375	95.729	1.00	35.33
7155	N	TYR	B	140	-21.259	-21.370	97.360	1.00	35.69
7156	CA	TYR	B	140	-22.506	-21.084	96.698	1.00	35.56
7157	CB	TYR	B	140	-22.673	-22.217	95.734	1.00	35.62
7158	CG	TYR	B	140	-23.103	-23.556	96.382	1.00	35.36
7159	CD1	TYR	B	140	-24.330	-23.875	96.914	1.00	34.83
7160	CE1	TYR	B	140	-24.558	-25.095	97.495	1.00	35.07
7161	CZ	TYR	B	140	-23.549	-26.024	97.562	1.00	34.69
7162	CH	TYR	B	140	-23.814	-27.241	98.153	1.00	35.30
7163	CE2	TYR	B	140	-22.312	-25.741	97.043	1.00	34.31
7164	CD2	TYR	B	140	-22.090	-24.512	96.448	1.00	35.31
7165	C	TYR	B	140	-23.604	-20.800	97.718	1.00	36.80
7166	O	TYR	B	140	-23.451	-21.080	98.909	1.00	36.15
7167	N	VAL	B	141	-24.685	-20.189	97.256	1.00	35.67
7168	CA	VAL	B	141	-25.833	-19.930	98.099	1.00	35.40
7169	CB	VAL	B	141	-26.234	-18.454	98.082	1.00	35.38
7170	CG1	VAL	B	141	-25.072	-17.591	98.465	1.00	33.53
7171	CG2	VAL	B	141	-27.423	-18.215	99.009	1.00	35.48
7172	C	VAL	B	141	-26.995	-20.732	97.558	1.00	35.92
7173	O	VAL	B	141	-27.207	-20.794	96.351	1.00	35.98
7174	N	TRP	B	142	-27.757	-21.342	98.446	1.00	36.11
7175	CA	TRP	B	142	-28.895	-22.119	98.019	1.00	37.00
7176	CB	TRP	B	142	-28.480	-23.562	97.725	1.00	37.45
7177	CG	TRP	B	142	-29.609	-24.447	97.413	1.00	37.97
7178	CD1	TRP	B	142	-30.222	-24.594	96.201	1.00	38.04
7179	NE1	TRP	B	142	-31.229	-25.526	96.292	1.00	38.64
7180	CE2	TRP	B	142	-31.290	-25.991	97.583	1.00	39.67
7181	CD2	TRP	B	142	-30.279	-25.330	98.315	1.00	38.37

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**FIGURE 3 EK**

A	B	C	D	E	F	G	H	I	J
7182	CE3	TRP	B	142	-30.124	-25.638	99.669	1.00	39.69
7183	CZ3	TRP	B	142	-30.976	-26.576	100.252	1.00	40.58
7184	CH2	TRP	B	142	-31.974	-27.217	99.495	1.00	41.69
7185	CZ2	TRP	B	142	-32.148	-26.935	98.162	1.00	40.31
7186	C	TRP	B	142	-29.908	-22.061	99.135	1.00	37.18
7187	O	TRP	B	142	-29.584	-22.362	100.293	1.00	37.62
7188	N	ASN	B	143	-31.123	-21.653	98.786	1.00	37.09
7189	CA	ASN	B	143	-32.174	-21.440	99.760	1.00	37.10
7190	CB	ASN	B	143	-32.571	-22.744	100.448	1.00	37.49
7191	CG	ASN	B	143	-33.440	-23.631	99.568	1.00	39.31
7192	OD1	ASN	B	143	-33.526	-24.843	99.785	1.00	42.68
7193	ND2	ASN	B	143	-34.098	-23.032	98.577	1.00	39.54
7194	C	ASN	B	143	-31.722	-20.398	100.773	1.00	36.82
7195	O	ASN	B	143	-32.004	-20.504	101.960	1.00	36.76
7196	N	ASN	B	144	-31.021	-19.387	100.277	1.00	36.79
7197	CA	ASN	B	144	-30.531	-18.280	101.093	1.00	37.18
7198	CB	ASN	B	144	-31.686	-17.568	101.805	1.00	37.04
7199	CG	ASN	B	144	-32.527	-16.720	100.861	1.00	36.49
7200	OD1	ASN	B	144	-32.660	-17.030	99.683	1.00	36.40
7201	ND2	ASN	B	144	-33.097	-15.648	101.384	1.00	33.59
7202	C	ASN	B	144	-29.424	-18.637	102.100	1.00	37.55
7203	O	ASN	B	144	-29.026	-17.798	102.899	1.00	38.80
7204	N	ASP	B	145	-28.926	-19.866	102.065	1.00	37.04
7205	CA	ASP	B	145	-27.830	-20.248	102.949	1.00	36.79
7206	CB	ASP	B	145	-28.196	-21.497	103.756	1.00	36.52
7207	CG	ASP	B	145	-28.965	-21.169	105.012	1.00	35.95
7208	OD1	ASP	B	145	-29.946	-21.885	105.300	1.00	35.23
7209	OD2	ASP	B	145	-28.672	-20.211	105.760	1.00	32.55
7210	C	ASP	B	145	-26.527	-20.488	102.172	1.00	36.81
7211	O	ASP	B	145	-26.548	-20.828	100.997	1.00	36.71
7212	N	ILE	B	146	-25.398	-20.304	102.843	1.00	37.17
7213	CA	ILE	B	146	-24.088	-20.514	102.234	1.00	37.41
7214	CB	ILE	B	146	-23.088	-19.527	102.804	1.00	37.34
7215	CG1	ILE	B	146	-23.598	-18.102	102.588	1.00	36.66
7216	CD1	ILE	B	146	-22.768	-17.054	103.237	1.00	34.03
7217	CG2	ILE	B	146	-21.717	-19.733	102.183	1.00	37.74
7218	C	ILE	B	146	-23.574	-21.936	102.431	1.00	37.89
7219	O	ILE	B	146	-23.890	-22.610	103.415	1.00	37.80
7220	N	TYR	B	147	-22.799	-22.393	101.458	1.00	38.32
7221	CA	TYR	B	147	-22.210	-23.717	101.482	1.00	38.55
7222	CB	TYR	B	147	-23.031	-24.678	100.647	1.00	38.37
7223	CG	TYR	B	147	-24.367	-25.068	101.217	1.00	37.96
7224	CD1	TYR	B	147	-24.534	-26.268	101.908	1.00	37.11
7225	CE1	TYR	B	147	-25.785	-26.638	102.412	1.00	36.57
7226	CZ	TYR	B	147	-26.874	-25.799	102.213	1.00	36.57
7227	OH	TYR	B	147	-28.122	-26.146	102.695	1.00	38.30
7228	CE2	TYR	B	147	-26.728	-24.622	101.523	1.00	34.92
7229	CD2	TYR	B	147	-25.486	-24.265	101.022	1.00	37.48
7230	C	TYR	B	147	-20.828	-23.622	100.867	1.00	38.87
7231	O	TYR	B	147	-20.585	-22.784	100.002	1.00	39.06
7232	N	VAL	B	148	-19.919	-24.479	101.310	1.00	39.44

**REPLACEMENT SHEET**  
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**FIGURE 3 EL**

A	B	C	D	E	F	G	H	I	J
7233	CA	VAL	B	148	-18.588	-24.488	100.737	1.00	39.71
7234	CB	VAL	B	148	-17.509	-24.035	101.718	1.00	39.96
7235	CG1	VAL	B	148	-16.147	-24.369	101.142	1.00	39.51
7236	CG2	VAL	B	148	-17.633	-22.535	102.015	1.00	39.81
7237	C	VAL	B	148	-18.201	-25.872	100.305	1.00	40.21
7238	O	VAL	B	148	-18.543	-26.857	100.956	1.00	40.48
7239	N	LYS	B	149	-17.480	-25.930	99.194	1.00	40.45
7240	CA	LYS	B	149	-16.926	-27.163	98.696	1.00	40.77
7241	CB	LYS	B	149	-17.494	-27.502	97.320	1.00	40.78
7242	CG	LYS	B	149	-18.834	-28.181	97.370	1.00	41.22
7243	CD	LYS	B	149	-19.360	-28.458	95.982	1.00	42.84
7244	CE	LYS	B	149	-20.033	-29.816	95.943	1.00	44.11
7245	NZ	LYS	B	149	-20.861	-30.062	97.161	1.00	44.71
7246	C	LYS	B	149	-15.436	-26.937	98.601	1.00	40.97
7247	O	LYS	B	149	-14.981	-26.041	97.888	1.00	41.10
7248	N	ILE	B	150	-14.674	-27.725	99.349	1.00	41.46
7249	CA	ILE	B	150	-13.227	-27.625	99.293	1.00	41.98
7250	CB	ILE	B	150	-12.589	-28.239	100.543	1.00	42.06
7251	CG1	ILE	B	150	-12.546	-27.196	101.656	1.00	42.77
7252	CD1	ILE	B	150	-13.585	-26.106	101.539	1.00	41.99
7253	CG2	ILE	B	150	-11.154	-28.660	100.263	1.00	42.89
7254	C	ILE	B	150	-12.790	-28.312	98.018	1.00	41.88
7255	O	ILE	B	150	-11.875	-27.873	97.345	1.00	41.45
7256	N	GLU	B	151	-13.488	-29.379	97.669	1.00	42.89
7257	CA	GLU	B	151	-13.240	-30.049	96.401	1.00	44.16
7258	CB	GLU	B	151	-12.493	-31.373	96.603	1.00	44.31
7259	CG	GLU	B	151	-11.200	-31.253	97.409	1.00	45.63
7260	CD	GLU	B	151	-10.025	-30.739	96.600	1.00	48.28
7261	OE1	GLU	B	151	-10.010	-30.951	95.373	1.00	50.02
7262	OE2	GLU	B	151	-9.108	-30.119	97.191	1.00	50.10
7263	C	GLU	B	151	-14.570	-30.247	95.682	1.00	44.43
7264	O	GLU	B	151	-15.577	-30.594	96.289	1.00	44.13
7265	N	PRO	B	152	-14.570	-30.022	94.381	1.00	45.23
7266	CA	PRO	B	152	-15.802	-30.091	93.594	1.00	46.07
7267	CB	PRO	B	152	-15.297	-29.979	92.158	1.00	45.96
7268	CG	PRO	B	152	-14.015	-29.226	92.275	1.00	45.42
7269	CD	PRO	B	152	-13.395	-29.684	93.558	1.00	45.23
7270	C	PRO	B	152	-16.602	-31.381	93.794	1.00	47.12
7271	O	PRO	B	152	-17.834	-31.353	93.728	1.00	46.89
7272	N	ASN	B	153	-15.919	-32.492	94.057	1.00	48.20
7273	CA	ASN	B	153	-16.609	-33.771	94.186	1.00	49.06
7274	CB	ASN	B	153	-15.790	-34.881	93.532	1.00	49.32
7275	CG	ASN	B	153	-14.711	-35.406	94.437	1.00	50.49
7276	OD1	ASN	B	153	-13.528	-35.102	94.267	1.00	51.24
7277	ND2	ASN	B	153	-15.111	-36.197	95.420	1.00	53.07
7278	C	ASN	B	153	-16.967	-34.162	95.615	1.00	49.43
7279	O	ASN	B	153	-17.598	-35.188	95.842	1.00	49.74
7280	N	LEU	B	154	-16.591	-33.336	96.579	1.00	49.88
7281	CA	LEU	B	154	-16.837	-33.669	97.973	1.00	50.21
7282	CB	LEU	B	154	-15.667	-33.186	98.826	1.00	50.44
7283	CG	LEU	B	154	-14.568	-34.191	99.167	1.00	51.03

**REPLACEMENT SHEET**  
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**FIGURE 3 EM**

A	B	C	D	E	F	G	H	I	J
7284	CD1	LEU	B	154	-14.481	-35.297	98.128	1.00	52.56
7285	CD2	LEU	B	154	-13.248	-33.473	99.285	1.00	52.12
7286	C	LEU	B	154	-18.140	-33.088	98.514	1.00	50.42
7287	O	LEU	B	154	-18.656	-32.090	98.007	1.00	50.74
7288	N	PRO	B	155	-18.679	-33.720	99.545	1.00	50.30
7289	CA	PRO	B	155	-19.869	-33.204	100.222	1.00	50.05
7290	CB	PRO	B	155	-19.971	-34.090	101.469	1.00	50.11
7291	CG	PRO	B	155	-18.609	-34.742	101.564	1.00	50.65
7292	CD	PRO	B	155	-18.220	-34.988	100.135	1.00	50.55
7293	C	PRO	B	155	-19.633	-31.748	100.608	1.00	49.51
7294	O	PRO	B	155	-18.479	-31.344	100.783	1.00	49.41
7295	N	SER	B	156	-20.711	-30.982	100.736	1.00	48.74
7296	CA	SER	B	156	-20.619	-29.547	101.005	1.00	48.18
7297	CB	SER	B	156	-21.763	-28.792	100.302	1.00	48.05
7298	OG	SER	B	156	-21.415	-28.458	98.966	1.00	48.05
7299	C	SER	B	156	-20.640	-29.189	102.486	1.00	47.66
7300	O	SER	B	156	-21.240	-29.875	103.312	1.00	47.05
7301	N	TYR	B	157	-19.988	-28.082	102.803	1.00	47.22
7302	CA	TYR	B	157	-19.999	-27.568	104.149	1.00	46.94
7303	CB	TYR	B	157	-18.635	-27.003	104.502	1.00	47.36
7304	CG	TYR	B	157	-17.554	-28.046	104.612	1.00	48.59
7305	CD1	TYR	B	157	-17.462	-28.869	105.728	1.00	50.51
7306	CE1	TYR	B	157	-16.455	-29.820	105.837	1.00	50.88
7307	CZ	TYR	B	157	-15.540	-29.944	104.823	1.00	50.85
7308	OH	TYR	B	157	-14.535	-30.872	104.903	1.00	53.46
7309	CE2	TYR	B	157	-15.616	-29.137	103.710	1.00	51.19
7310	CD2	TYR	B	157	-16.613	-28.198	103.610	1.00	49.46
7311	C	TYR	B	157	-21.049	-26.472	104.233	1.00	46.22
7312	O	TYR	B	157	-20.942	-25.441	103.572	1.00	45.77
7313	N	ARG	B	158	-22.065	-26.720	105.047	1.00	45.42
7314	CA	ARG	B	158	-23.137	-25.775	105.279	1.00	44.92
7315	CB	ARG	B	158	-24.279	-26.497	105.999	1.00	45.11
7316	CG	ARG	B	158	-25.641	-26.404	105.373	1.00	45.98
7317	CD	ARG	B	158	-26.622	-25.478	106.084	1.00	48.49
7318	NE	ARG	B	158	-27.943	-26.099	106.177	1.00	49.66
7319	CZ	ARG	B	158	-29.096	-25.446	106.138	1.00	50.00
7320	NH1	ARG	B	158	-29.117	-24.134	106.009	1.00	50.42
7321	NH2	ARG	B	158	-30.235	-26.114	106.235	1.00	49.94
7322	C	ARG	B	158	-22.591	-24.689	106.189	1.00	44.40
7323	O	ARG	B	158	-22.266	-24.964	107.341	1.00	44.02
7324	N	ILE	B	159	-22.469	-23.463	105.686	1.00	43.84
7325	CA	ILE	B	159	-22.002	-22.368	106.532	1.00	43.13
7326	CB	ILE	B	159	-21.245	-21.305	105.711	1.00	43.15
7327	CG1	ILE	B	159	-20.127	-21.960	104.888	1.00	43.08
7328	CD1	ILE	B	159	-19.379	-23.072	105.610	1.00	40.50
7329	CG2	ILE	B	159	-20.678	-20.213	106.618	1.00	42.00
7330	C	ILE	B	159	-23.138	-21.742	107.356	1.00	43.24
7331	O	ILE	B	159	-22.978	-21.499	108.550	1.00	42.94
7332	N	THR	B	160	-24.295	-21.501	106.742	1.00	43.15
7333	CA	THR	B	160	-25.395	-20.882	107.485	1.00	43.07
7334	CB	THR	B	160	-25.738	-19.488	106.924	1.00	43.35

**REPLACEMENT SHEET**  
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**FIGURE 3 EN**

A	B	C	D	E	F	G	H	I	J
7335	OG1	THR	B	160	-26.277	-19.612	105.594	1.00	43.35
7336	CG2	THR	B	160	-24.468	-18.671	106.732	1.00	42.11
7337	C	THR	B	160	-26.640	-21.743	107.564	1.00	43.24
7338	O	THR	B	160	-26.858	-22.633	106.747	1.00	43.71
7339	N	TRP	B	161	-27.467	-21.477	108.559	1.00	43.10
7340	CA	TRP	B	161	-28.651	-22.284	108.758	1.00	43.13
7341	CB	TRP	B	161	-28.448	-23.207	109.960	1.00	43.35
7342	CG	TRP	B	161	-27.335	-24.217	109.814	1.00	43.29
7343	CD1	TRP	B	161	-25.989	-23.984	109.894	1.00	41.69
7344	NE1	TRP	B	161	-25.295	-25.159	109.723	1.00	41.69
7345	CE2	TRP	B	161	-26.186	-26.182	109.538	1.00	42.31
7346	CD2	TRP	B	161	-27.483	-25.623	109.587	1.00	42.81
7347	CE3	TRP	B	161	-28.582	-26.471	109.431	1.00	42.85
7348	CZ3	TRP	B	161	-28.356	-27.825	109.217	1.00	44.59
7349	CH2	TRP	B	161	-27.050	-28.345	109.167	1.00	43.07
7350	CZ2	TRP	B	161	-25.959	-27.539	109.317	1.00	42.07
7351	C	TRP	B	161	-29.854	-21.399	109.020	1.00	43.23
7352	O	TRP	B	161	-30.892	-21.876	109.460	1.00	43.49
7353	N	THR	B	162	-29.716	-20.109	108.758	1.00	43.00
7354	CA	THR	B	162	-30.786	-19.171	109.071	1.00	43.22
7355	CB	THR	B	162	-30.197	-17.990	109.819	1.00	42.86
7356	OG1	THR	B	162	-29.199	-17.384	108.996	1.00	43.09
7357	CG2	THR	B	162	-29.402	-18.485	111.017	1.00	42.82
7358	C	THR	B	162	-31.558	-18.665	107.847	1.00	43.08
7359	O	THR	B	162	-32.638	-18.098	107.984	1.00	42.87
7360	N	GLY	B	163	-30.984	-18.860	106.665	1.00	43.22
7361	CA	GLY	B	163	-31.609	-18.446	105.429	1.00	43.32
7362	C	GLY	B	163	-33.107	-18.688	105.430	1.00	43.53
7363	O	GLY	B	163	-33.571	-19.799	105.714	1.00	43.50
7364	N	LYS	B	164	-33.862	-17.636	105.122	1.00	43.32
7365	CA	LYS	B	164	-35.318	-17.719	105.067	1.00	43.66
7366	CB	LYS	B	164	-35.924	-17.290	106.404	1.00	43.86
7367	CG	LYS	B	164	-37.444	-17.402	106.460	1.00	45.67
7368	CD	LYS	B	164	-37.970	-17.337	107.897	1.00	47.17
7369	CE	LYS	B	164	-39.497	-17.471	107.904	1.00	49.52
7370	NZ	LYS	B	164	-40.097	-17.520	109.267	1.00	48.85
7371	C	LYS	B	164	-35.859	-16.855	103.920	1.00	43.13
7372	O	LYS	B	164	-35.777	-15.629	103.963	1.00	42.90
7373	N	GLU	B	165	-36.390	-17.509	102.894	1.00	42.88
7374	CA	GLU	B	165	-36.916	-16.827	101.707	1.00	42.75
7375	CB	GLU	B	165	-37.875	-17.769	100.970	1.00	42.89
7376	CG	GLU	B	165	-38.447	-17.218	99.675	1.00	46.01
7377	CD	GLU	B	165	-39.346	-18.229	98.978	1.00	50.75
7378	OE1	GLU	B	165	-40.426	-18.572	99.533	1.00	50.41
7379	OE2	GLU	B	165	-38.962	-18.695	97.876	1.00	53.37
7380	C	GLU	B	165	-37.602	-15.488	102.044	1.00	41.49
7381	O	GLU	B	165	-38.538	-15.456	102.823	1.00	41.12
7382	N	ASN	B	166	-37.108	-14.392	101.473	1.00	40.30
7383	CA	ASN	B	166	-37.662	-13.053	101.719	1.00	39.57
7384	CB	ASN	B	166	-39.179	-13.017	101.491	1.00	39.43
7385	CG	ASN	B	166	-39.571	-13.312	100.046	1.00	38.77

**REPLACEMENT SHEET**  
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**FIGURE 3 EO**

A	B	C	D	E	F	G	H	I	J
7386	OD1	ASN	B	166	-38.892	-12.895	99.108	1.00	39.24
7387	ND2	ASN	B	166	-40.675	-14.037	99.867	1.00	36.86
7388	C	ASN	B	166	-37.363	-12.425	103.084	1.00	39.44
7389	O	ASN	B	166	-37.652	-11.249	103.302	1.00	39.64
7390	N	ILE	B	167	-36.804	-13.194	104.010	1.00	38.55
7391	CA	ILE	B	167	-36.523	-12.651	105.326	1.00	37.72
7392	CB	ILE	B	167	-37.297	-13.426	106.415	1.00	38.14
7393	CG1	ILE	B	167	-38.801	-13.239	106.216	1.00	38.62
7394	CD1	ILE	B	167	-39.452	-14.349	105.474	1.00	40.55
7395	CG2	ILE	B	167	-36.927	-12.924	107.796	1.00	37.27
7396	C	ILE	B	167	-35.035	-12.593	105.631	1.00	36.78
7397	O	ILE	B	167	-34.502	-11.529	105.876	1.00	37.09
7398	N	ILE	B	168	-34.356	-13.730	105.594	1.00	35.88
7399	CA	ILE	B	168	-32.934	-13.748	105.899	1.00	34.97
7400	CB	ILE	B	168	-32.696	-14.591	107.179	1.00	35.66
7401	CG1	ILE	B	168	-33.226	-13.809	108.393	1.00	35.90
7402	CD1	ILE	B	168	-33.721	-14.673	109.511	1.00	40.18
7403	CG2	ILE	B	168	-31.223	-14.947	107.326	1.00	34.03
7404	C	ILE	B	168	-32.105	-14.239	104.730	1.00	34.18
7405	O	ILE	B	168	-32.317	-15.343	104.234	1.00	34.01
7406	N	TYR	B	169	-31.193	-13.391	104.265	1.00	33.65
7407	CA	TYR	B	169	-30.309	-13.715	103.147	1.00	33.38
7408	CB	TYR	B	169	-30.335	-12.621	102.083	1.00	33.36
7409	CG	TYR	B	169	-31.679	-12.194	101.564	1.00	34.51
7410	CD1	TYR	B	169	-32.566	-11.521	102.382	1.00	35.15
7411	CE1	TYR	B	169	-33.790	-11.087	101.908	1.00	36.27
7412	CZ	TYR	B	169	-34.146	-11.307	100.585	1.00	36.51
7413	OH	TYR	B	169	-35.384	-10.858	100.163	1.00	37.33
7414	CE2	TYR	B	169	-33.278	-11.968	99.731	1.00	34.96
7415	CD2	TYR	B	169	-32.036	-12.398	100.224	1.00	34.82
7416	C	TYR	B	169	-28.860	-13.828	103.622	1.00	33.08
7417	O	TYR	B	169	-28.336	-12.899	104.240	1.00	32.88
7418	N	ASN	B	170	-28.217	-14.952	103.321	1.00	32.60
7419	CA	ASN	B	170	-26.826	-15.171	103.688	1.00	32.11
7420	CB	ASN	B	170	-26.657	-16.482	104.471	1.00	32.23
7421	CG	ASN	B	170	-27.415	-16.513	105.776	1.00	32.33
7422	OD1	ASN	B	170	-28.356	-17.289	105.932	1.00	33.34
7423	ND2	ASN	B	170	-26.990	-15.703	106.735	1.00	30.14
7424	C	ASN	B	170	-26.025	-15.327	102.420	1.00	31.44
7425	O	ASN	B	170	-26.245	-16.282	101.685	1.00	31.22
7426	N	GLY	B	171	-25.084	-14.430	102.164	1.00	30.91
7427	CA	GLY	B	171	-24.249	-14.552	100.982	1.00	30.57
7428	C	GLY	B	171	-24.806	-13.905	99.713	1.00	30.67
7429	O	GLY	B	171	-24.083	-13.797	98.726	1.00	29.92
7430	N	ILE	B	172	-26.080	-13.487	99.746	1.00	30.45
7431	CA	ILE	B	172	-26.711	-12.764	98.642	1.00	30.45
7432	CB	ILE	B	172	-27.703	-13.666	97.892	1.00	30.43
7433	CG1	ILE	B	172	-28.635	-14.358	98.899	1.00	29.88
7434	CD1	ILE	B	172	-29.746	-15.140	98.262	1.00	28.11
7435	CG2	ILE	B	172	-26.966	-14.647	97.004	1.00	28.79
7436	C	ILE	B	172	-27.476	-11.553	99.155	1.00	30.70

**REPLACEMENT SHEET**  
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**FIGURE 3 EP**

A	B	C	D	E	F	G	H	I	J
7437	O	ILE	B	172	-27.952	-11.533	100.288	1.00	31.56
7438	N	THR	B	173	-27.638	-10.546	98.314	1.00	30.54
7439	CA	THR	B	173	-28.366	-9.353	98.730	1.00	30.17
7440	CB	THR	B	173	-27.998	-8.248	97.790	1.00	30.29
7441	OG1	THR	B	173	-27.995	-8.776	96.451	1.00	30.15
7442	CG2	THR	B	173	-26.544	-7.836	98.045	1.00	29.43
7443	C	THR	B	173	-29.883	-9.516	98.695	1.00	30.13
7444	O	THR	B	173	-30.395	-10.516	98.181	1.00	30.07
7445	N	ASP	B	174	-30.603	-8.531	99.245	1.00	29.15
7446	CA	ASP	B	174	-32.053	-8.480	99.078	1.00	28.13
7447	CB	ASP	B	174	-32.750	-7.944	100.324	1.00	28.31
7448	CG	ASP	B	174	-32.454	-6.485	100.570	1.00	29.05
7449	OD1	ASP	B	174	-33.182	-5.855	101.372	1.00	30.08
7450	OD2	ASP	B	174	-31.529	-5.875	99.997	1.00	28.42
7451	C	ASP	B	174	-32.238	-7.533	97.911	1.00	27.65
7452	O	ASP	B	174	-31.253	-7.141	97.298	1.00	27.19
7453	N	TRP	B	175	-33.469	-7.127	97.596	1.00	27.54
7454	CA	TRP	B	175	-33.648	-6.240	96.432	1.00	26.79
7455	CB	TRP	B	175	-35.128	-5.926	96.122	1.00	26.14
7456	CG	TRP	B	175	-35.261	-5.307	94.757	1.00	23.48
7457	CD1	TRP	B	175	-35.570	-5.953	93.586	1.00	22.72
7458	NE1	TRP	B	175	-35.566	-5.065	92.535	1.00	22.62
7459	CE2	TRP	B	175	-35.271	-3.815	93.010	1.00	22.14
7460	CD2	TRP	B	175	-35.068	-3.930	94.407	1.00	21.47
7461	CE3	TRP	B	175	-34.771	-2.780	95.130	1.00	19.92
7462	CZ3	TRP	B	175	-34.657	-1.568	94.456	1.00	20.93
7463	CH2	TRP	B	175	-34.855	-1.484	93.079	1.00	20.31
7464	CZ2	TRP	B	175	-35.169	-2.600	92.335	1.00	22.25
7465	C	TRP	B	175	-32.834	-4.947	96.415	1.00	27.04
7466	O	TRP	B	175	-32.199	-4.653	95.409	1.00	27.07
7467	N	VAL	B	176	-32.878	-4.141	97.481	1.00	27.37
7468	CA	VAL	B	176	-32.150	-2.856	97.437	1.00	27.70
7469	CB	VAL	B	176	-32.408	-1.918	98.659	1.00	27.94
7470	CG1	VAL	B	176	-32.922	-2.697	99.840	1.00	29.41
7471	CG2	VAL	B	176	-33.313	-0.812	98.284	1.00	27.83
7472	C	VAL	B	176	-30.653	-2.978	97.412	1.00	27.07
7473	O	VAL	B	176	-29.988	-2.183	96.788	1.00	27.17
7474	N	TYR	B	177	-30.107	-3.924	98.152	1.00	27.06
7475	CA	TYR	B	177	-28.672	-4.032	98.169	1.00	27.84
7476	CB	TYR	B	177	-28.214	-5.024	99.239	1.00	28.15
7477	CG	TYR	B	177	-27.918	-4.360	100.567	1.00	29.10
7478	CD1	TYR	B	177	-28.941	-4.117	101.506	1.00	27.32
7479	CE1	TYR	B	177	-28.665	-3.513	102.711	1.00	28.33
7480	C2	TYR	B	177	-27.354	-3.134	102.987	1.00	29.96
7481	OH	TYR	B	177	-27.032	-2.521	104.161	1.00	30.14
7482	CE2	TYR	B	177	-26.343	-3.360	102.081	1.00	29.19
7483	CD2	TYR	B	177	-26.630	-3.964	100.877	1.00	27.15
7484	C	TYR	B	177	-28.184	-4.404	96.779	1.00	28.36
7485	O	TYR	B	177	-27.234	-3.808	96.246	1.00	28.11
7486	N	GLU	B	178	-28.859	-5.360	96.162	1.00	28.62
7487	CA	GLU	B	178	-28.408	-5.767	94.847	1.00	29.47



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**FIGURE 3 EQ**

A	B	C	D	E	F	G	H	I	J
7488	CB	GLU	B	178	-29.292	-6.858	94.256	1.00	29.15
7489	CG	GLU	B	178	-28.905	-7.190	92.826	1.00	27.91
7490	CD	GLU	B	178	-29.890	-8.149	92.182	1.00	25.71
7491	OE1	GLU	B	178	-29.962	-8.151	90.942	1.00	27.31
7492	OE2	GLU	B	178	-30.607	-8.860	92.919	1.00	22.10
7493	C	GLU	B	178	-28.376	-4.584	93.908	1.00	29.85
7494	O	GLU	B	178	-27.340	-4.295	93.295	1.00	29.77
7495	N	GLU	B	179	-29.507	-3.881	93.833	1.00	30.44
7496	CA	GLU	B	179	-29.677	-2.804	92.872	1.00	31.04
7497	CB	GLU	B	179	-31.182	-2.541	92.624	1.00	31.33
7498	CG	GLU	B	179	-31.470	-1.322	91.739	1.00	30.44
7499	CD	GLU	B	179	-31.039	-1.563	90.307	1.00	30.62
7500	OE1	GLU	B	179	-30.843	-2.753	89.978	1.00	31.34
7501	OE2	GLU	B	179	-30.893	-0.592	89.518	1.00	30.02
7502	C	GLU	B	179	-29.002	-1.493	93.218	1.00	31.78
7503	O	GLU	B	179	-28.433	-0.844	92.353	1.00	31.90
7504	N	GLU	B	180	-29.082	-1.078	94.474	1.00	32.62
7505	CA	GLU	B	180	-28.608	0.252	94.824	1.00	33.58
7506	CB	GLU	B	180	-29.726	1.019	95.554	1.00	33.44
7507	CG	GLU	B	180	-31.081	0.966	94.860	1.00	33.23
7508	CD	GLU	B	180	-31.194	1.925	93.687	1.00	33.27
7509	OE1	GLU	B	180	-30.149	2.442	93.233	1.00	34.14
7510	OE2	GLU	B	180	-32.332	2.176	93.219	1.00	33.57
7511	C	GLU	B	180	-27.326	0.323	95.644	1.00	34.47
7512	O	GLU	B	180	-26.507	1.220	95.454	1.00	34.81
7513	N	VAL	B	181	-27.164	-0.586	96.590	1.00	35.56
7514	CA	VAL	B	181	-25.974	-0.539	97.430	1.00	36.34
7515	CB	VAL	B	181	-26.227	-1.164	98.786	1.00	36.64
7516	CG1	VAL	B	181	-25.010	-0.997	99.674	1.00	37.55
7517	CG2	VAL	B	181	-27.453	-0.505	99.439	1.00	36.85
7518	C	VAL	B	181	-24.795	-1.202	96.749	1.00	36.58
7519	O	VAL	B	181	-23.817	-0.538	96.422	1.00	37.02
7520	N	PHE	B	182	-24.895	-2.495	96.467	1.00	37.09
7521	CA	PHE	B	182	-23.768	-3.189	95.838	1.00	36.97
7522	CB	PHE	B	182	-23.741	-4.671	96.207	1.00	36.58
7523	CG	PHE	B	182	-23.482	-4.936	97.663	1.00	37.39
7524	CD1	PHE	B	182	-23.257	-3.900	98.552	1.00	37.49
7525	CE1	PHE	B	182	-23.029	-4.147	99.903	1.00	37.26
7526	CZ	PHE	B	182	-23.019	-5.423	100.375	1.00	36.96
7527	CE2	PHE	B	182	-23.237	-6.474	99.499	1.00	39.17
7528	CD2	PHE	B	182	-23.467	-6.225	98.147	1.00	38.10
7529	C	PHE	B	182	-23.679	-3.028	94.328	1.00	37.24
7530	O	PHE	B	182	-22.641	-2.621	93.814	1.00	38.18
7531	N	SER	B	183	-24.778	-3.319	93.632	1.00	37.49
7532	CA	SER	B	183	-24.842	-3.392	92.167	1.00	36.70
7533	CB	SER	B	183	-23.933	-2.400	91.452	1.00	36.88
7534	OG	SER	B	183	-24.612	-1.194	91.161	1.00	36.34
7535	C	SER	B	183	-24.453	-4.790	91.769	1.00	36.58
7536	O	SER	B	183	-23.849	-5.010	90.710	1.00	37.26
7537	N	ALA	B	184	-24.798	-5.738	92.627	1.00	35.60
7538	CA	ALA	B	184	-24.502	-7.127	92.372	1.00	34.98

**REPLACEMENT SHEET**  
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**FIGURE 3 ER**

A	B	C	D	E	F	G	H	I	J
7539	CB	ALA	B	184	-23.043	-7.420	92.640	1.00	35.69
7540	C	ALA	B	184	-25.358	-7.935	93.300	1.00	34.68
7541	O	ALA	B	184	-25.641	-7.420	94.299	1.00	35.13
7542	N	TYR	B	185	-25.535	-9.203	92.969	1.00	33.68
7543	CA	TYR	B	185	-26.319	-10.103	93.784	1.00	33.79
7544	CB	TYR	B	185	-26.744	-11.285	92.938	1.00	32.72
7545	CG	TYR	B	185	-27.789	-12.180	93.562	1.00	32.50
7546	CD1	TYR	B	185	-27.894	-13.511	93.171	1.00	29.63
7547	CE1	TYR	B	185	-28.841	-14.325	93.684	1.00	28.92
7548	CZ	TYR	B	185	-29.733	-13.849	94.606	1.00	29.80
7549	OH	TYR	B	185	-30.679	-14.731	95.083	1.00	30.48
7550	CE2	TYR	B	185	-29.680	-12.535	95.029	1.00	28.44
7551	CD2	TYR	B	185	-28.706	-11.694	94.494	1.00	29.79
7552	C	TYR	B	185	-25.489	-10.648	94.934	1.00	34.13
7553	O	TYR	B	185	-25.965	-10.738	96.065	1.00	34.82
7554	N	SER	B	186	-24.261	-11.037	94.607	1.00	34.52
7555	CA	SER	B	186	-23.329	-11.672	95.530	1.00	34.83
7556	CB	SER	B	186	-22.044	-12.048	94.792	1.00	34.59
7557	OG	SER	B	186	-21.192	-12.841	95.610	1.00	35.38
7558	C	SER	B	186	-22.962	-10.808	96.719	1.00	35.02
7559	O	SER	B	186	-22.658	-9.625	96.571	1.00	34.94
7560	N	ALA	B	187	-23.005	-11.410	97.900	1.00	35.25
7561	CA	ALA	B	187	-22.539	-10.744	99.103	1.00	36.21
7562	CB	ALA	B	187	-23.704	-10.353	100.023	1.00	36.09
7563	C	ALA	B	187	-21.576	-11.691	99.809	1.00	36.77
7564	O	ALA	B	187	-21.650	-11.877	101.025	1.00	36.72
7565	N	LEU	B	188	-20.699	-12.302	99.014	1.00	37.09
7566	CA	LEU	B	188	-19.643	-13.173	99.496	1.00	37.64
7567	CB	LEU	B	188	-19.822	-14.586	98.934	1.00	38.66
7568	CG	LEU	B	188	-20.919	-15.422	99.586	1.00	38.66
7569	CD1	LEU	B	188	-21.101	-16.710	98.849	1.00	40.07
7570	CD2	LEU	B	188	-20.528	-15.704	100.998	1.00	40.71
7571	C	LEU	B	188	-18.334	-12.584	98.988	1.00	37.53
7572	O	LEU	B	188	-18.279	-12.115	97.854	1.00	38.18
7573	N	TRP	B	189	-17.286	-12.582	99.815	1.00	37.05
7574	CA	TRP	B	189	-15.995	-12.040	99.391	1.00	36.44
7575	CB	TRP	B	189	-15.833	-10.602	99.891	1.00	36.28
7576	CG	TRP	B	189	-16.914	-9.648	99.454	1.00	36.18
7577	CD1	TRP	B	189	-16.895	-8.832	98.355	1.00	36.04
7578	NE1	TRP	B	189	-18.049	-8.089	98.295	1.00	35.31
7579	CE2	TRP	B	189	-18.850	-8.427	99.353	1.00	35.02
7580	CD2	TRP	B	189	-18.164	-9.399	100.109	1.00	35.13
7581	CE3	TRP	B	189	-18.777	-9.904	101.263	1.00	35.16
7582	CZ3	TRP	B	189	-20.025	-9.422	101.624	1.00	34.26
7583	CH2	TRP	B	189	-20.674	-8.449	100.853	1.00	35.25
7584	CZ2	TRP	B	189	-20.105	-7.941	99.717	1.00	34.68
7585	C	TRP	B	189	-14.826	-12.892	99.899	1.00	36.59
7586	O	TRP	B	189	-14.435	-12.786	101.065	1.00	36.63
7587	N	TRP	B	190	-14.230	-13.746	99.034	1.00	36.22
7588	CA	TRP	B	190	-13.158	-14.614	99.411	1.00	35.36
7589	CB	TRP	B	190	-12.765	-15.539	98.260	1.00	34.95

**REPLACEMENT SHEET**  
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**FIGURE 3 ES**

A	B	C	D	E	F	G	H	I	J
7590	CG	TRP	B	190	-13.627	-16.753	96.036	1.00	34.74
7591	CD1	TRP	B	190	-14.552	-16.926	97.046	1.00	33.53
7592	NE1	TRP	B	190	-15.123	-18.172	97.137	1.00	34.28
7593	CE2	TRP	B	190	-14.561	-18.844	98.190	1.00	34.02
7594	CD2	TRP	B	190	-13.607	-17.981	98.778	1.00	34.82
7595	CE3	TRP	B	190	-12.880	-18.443	99.680	1.00	35.18
7596	CZ3	TRP	B	190	-13.135	-19.714	100.363	1.00	35.47
7597	CH2	TRP	B	190	-14.094	-20.542	99.753	1.00	36.43
7598	CZ2	TRP	B	190	-14.812	-20.123	98.669	1.00	33.78
7599	C	TRP	B	190	-11.921	-13.810	99.731	1.00	35.35
7600	O	TRP	B	190	-11.610	-12.839	99.025	1.00	34.85
7601	N	SER	B	191	-11.196	-14.218	100.775	1.00	34.91
7602	CA	SER	B	191	-9.906	-13.599	101.044	1.00	35.16
7603	CB	SER	B	191	-9.284	-14.137	102.347	1.00	35.21
7604	OG	SER	B	191	-9.135	-15.553	102.340	1.00	33.94
7605	C	SER	B	191	-9.052	-13.923	99.805	1.00	35.52
7606	O	SER	B	191	-9.329	-14.893	99.097	1.00	34.63
7607	N	PRO	B	192	-8.021	-13.136	99.536	1.00	36.13
7608	CA	PRO	B	192	-7.250	-13.316	98.303	1.00	37.16
7609	CB	PRO	B	192	-6.095	-12.328	98.454	1.00	36.92
7610	CG	PRO	B	192	-6.617	-11.298	99.386	1.00	36.51
7611	CD	PRO	B	192	-7.507	-12.026	100.352	1.00	36.33
7612	C	PRO	B	192	-6.757	-14.741	98.054	1.00	37.97
7613	O	PRO	B	192	-6.767	-15.179	96.905	1.00	38.49
7614	N	ASN	B	193	-6.357	-15.471	99.080	1.00	38.89
7615	CA	ASN	B	193	-5.880	-16.828	98.821	1.00	39.87
7616	CB	ASN	B	193	-4.494	-17.080	99.435	1.00	40.26
7617	CG	ASN	B	193	-4.543	-17.313	100.926	1.00	41.85
7618	OD1	ASN	B	193	-5.612	-17.455	101.519	1.00	42.23
7619	ND2	ASN	B	193	-3.366	-17.365	101.543	1.00	48.05
7620	C	ASN	B	193	-6.877	-17.910	99.193	1.00	39.93
7621	O	ASN	B	193	-6.537	-19.100	99.236	1.00	40.09
7622	N	GLY	B	194	-8.109	-17.478	99.466	1.00	40.22
7623	CA	GLY	B	194	-9.222	-18.373	99.728	1.00	39.55
7624	C	GLY	B	194	-9.309	-18.912	101.137	1.00	39.45
7625	O	GLY	B	194	-10.154	-19.772	101.440	1.00	39.26
7626	N	THR	B	195	-8.437	-18.443	102.017	1.00	39.14
7627	CA	THR	B	195	-8.505	-18.953	103.382	1.00	39.39
7628	CB	THR	B	195	-7.321	-18.457	104.222	1.00	39.64
7629	OG1	THR	B	195	-6.129	-19.138	103.795	1.00	41.03
7630	CG2	THR	B	195	-7.492	-18.901	105.677	1.00	39.46
7631	C	THR	B	195	-9.823	-18.557	104.029	1.00	39.04
7632	O	THR	B	195	-10.530	-19.385	104.615	1.00	39.15
7633	N	PHE	B	196	-10.170	-17.286	103.914	1.00	38.64
7634	CA	PHE	B	196	-11.400	-16.837	104.541	1.00	38.73
7635	CB	PHE	B	196	-11.143	-15.571	105.365	1.00	39.12
7636	CG	PHE	B	196	-10.179	-15.766	106.515	1.00	38.78
7637	CD1	PHE	B	196	-10.581	-16.387	107.677	1.00	39.07
7638	CE1	PHE	B	196	-9.695	-16.552	108.745	1.00	39.69
7639	CZ	PHE	B	196	-8.399	-16.083	108.653	1.00	38.45
7640	CE2	PHE	B	196	-7.986	-15.449	107.506	1.00	39.56

**REPLACEMENT SHEET**  
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**FIGURE 3 ET**

A	B	C	D	E	F	G	H	I	J
7641	CD2	PHE	B	196	-8.876	-15.294	106.436	1.00	40.57
7642	C	PHE	B	196	-12.538	-16.608	103.540	1.00	38.22
7643	O	PHE	B	196	-12.301	-16.341	102.359	1.00	37.99
7644	N	LEU	B	197	-13.769	-16.780	104.018	1.00	37.58
7645	CA	LEU	B	197	-14.960	-16.417	103.260	1.00	36.62
7646	CB	LEU	B	197	-15.883	-17.610	103.053	1.00	36.67
7647	CG	LEU	B	197	-17.171	-17.316	102.275	1.00	35.82
7648	CD1	LEU	B	197	-18.028	-18.570	102.130	1.00	34.72
7649	CD2	LEU	B	197	-16.844	-16.752	100.911	1.00	35.59
7650	C	LEU	B	197	-15.681	-15.359	104.074	1.00	36.35
7651	O	LEU	B	197	-16.209	-15.636	105.150	1.00	36.69
7652	N	ALA	B	198	-15.672	-14.131	103.592	1.00	35.96
7653	CA	ALA	B	198	-16.378	-13.076	104.291	1.00	35.46
7654	CB	ALA	B	198	-15.689	-11.744	104.069	1.00	34.80
7655	C	ALA	B	198	-17.766	-13.069	103.671	1.00	35.25
7656	O	ALA	B	198	-17.911	-13.417	102.504	1.00	35.46
7657	N	TYR	B	199	-18.778	-12.686	104.438	1.00	34.76
7658	CA	TYR	B	199	-20.118	-12.551	103.885	1.00	34.75
7659	CB	TYR	B	199	-20.802	-13.915	103.750	1.00	34.69
7660	CG	TYR	B	199	-21.164	-14.595	105.049	1.00	34.33
7661	CD1	TYR	B	199	-22.431	-14.481	105.567	1.00	34.88
7662	CE1	TYR	B	199	-22.788	-15.115	106.741	1.00	34.48
7663	CZ	TYR	B	199	-21.863	-15.868	107.414	1.00	34.51
7664	OH	TYR	B	199	-22.249	-16.492	108.574	1.00	34.37
7665	CE2	TYR	B	199	-20.587	-16.002	106.917	1.00	33.81
7666	CD2	TYR	B	199	-20.244	-15.371	105.742	1.00	33.39
7667	C	TYR	B	199	-21.006	-11.591	104.682	1.00	35.01
7668	O	TYR	B	199	-20.736	-11.302	105.857	1.00	34.69
7669	N	ALA	B	200	-22.058	-11.106	104.023	1.00	34.47
7670	CA	ALA	B	200	-23.045	-10.246	104.649	1.00	34.12
7671	CB	ALA	B	200	-23.355	-9.061	103.760	1.00	33.97
7672	C	ALA	B	200	-24.290	-11.077	104.852	1.00	34.39
7673	O	ALA	B	200	-24.498	-12.068	104.151	1.00	34.15
7674	N	GLN	B	201	-25.096	-10.704	105.841	1.00	34.40
7675	CA	GLN	B	201	-26.373	-11.356	106.069	1.00	33.96
7676	CB	GLN	B	201	-26.377	-12.167	107.352	1.00	34.46
7677	CG	GLN	B	201	-27.724	-12.772	107.659	1.00	32.51
7678	CD	GLN	B	201	-27.834	-13.283	109.076	1.00	33.53
7679	OE1	GLN	B	201	-27.775	-14.507	109.314	1.00	33.56
7680	NE2	GLN	B	201	-28.019	-12.361	110.028	1.00	31.19
7681	C	GLN	B	201	-27.435	-10.274	106.163	1.00	34.27
7682	O	GLN	B	201	-27.296	-9.334	106.945	1.00	34.41
7683	N	PHE	B	202	-28.504	-10.414	105.383	1.00	34.03
7684	CA	PHE	B	202	-29.508	-9.366	105.324	1.00	33.58
7685	CB	PHE	B	202	-29.678	-8.875	103.876	1.00	32.92
7686	CG	PHE	B	202	-28.403	-8.329	103.267	1.00	31.65
7687	CD1	PHE	B	202	-28.003	-7.023	103.510	1.00	27.76
7688	CE1	PHE	B	202	-26.847	-6.536	102.961	1.00	27.18
7689	CZ	PHE	B	202	-26.045	-7.356	102.164	1.00	26.78
7690	CE2	PHE	B	202	-26.429	-8.647	101.922	1.00	27.05
7691	CD2	PHE	B	202	-27.597	-9.133	102.468	1.00	29.82

**REPLACEMENT SHEET**  
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**FIGURE 3 EU**

A	B	C	D	E	F	G	H	I	J
7692	C	PHE	B	202	-30.814	-9.819	105.953	1.00	33.86
7693	O	PHE	B	202	-31.283	-10.925	105.738	1.00	34.06
7694	N	ASN	B	203	-31.382	-8.956	106.771	1.00	34.76
7695	CA	ASN	B	203	-32.612	-9.267	107.473	1.00	35.42
7696	CB	ASN	B	203	-32.397	-9.046	108.975	1.00	35.36
7697	CG	ASN	B	203	-33.549	-9.565	109.817	1.00	38.08
7698	OD1	ASN	B	203	-34.646	-9.813	109.311	1.00	39.09
7699	ND2	ASN	B	203	-33.308	-9.729	111.117	1.00	44.51
7700	C	ASN	B	203	-33.672	-8.325	106.926	1.00	35.44
7701	O	ASN	B	203	-33.517	-7.113	107.046	1.00	35.12
7702	N	ASP	B	204	-34.730	-8.870	106.319	1.00	35.37
7703	CA	ASP	B	204	-35.775	-8.040	105.705	1.00	36.12
7704	CB	ASP	B	204	-35.880	-8.318	104.199	1.00	36.29
7705	CG	ASP	B	204	-34.869	-7.543	103.398	1.00	35.99
7706	OD1	ASP	B	204	-33.668	-7.838	103.486	1.00	38.20
7707	OD2	ASP	B	204	-35.167	-6.602	102.666	1.00	35.99
7708	C	ASP	B	204	-37.135	-8.243	106.354	1.00	36.77
7709	O	ASP	B	204	-38.174	-7.885	105.799	1.00	36.63
7710	N	THR	B	205	-37.096	-8.818	107.546	1.00	37.26
7711	CA	THR	B	205	-38.255	-9.136	108.367	1.00	37.48
7712	CB	THR	B	205	-37.777	-9.252	109.815	1.00	37.68
7713	OG1	THR	B	205	-36.589	-10.057	109.849	1.00	39.08
7714	CG2	THR	B	205	-38.771	-10.014	110.661	1.00	37.50
7715	C	THR	B	205	-39.407	-8.141	108.311	1.00	37.68
7716	O	THR	B	205	-40.579	-8.525	108.135	1.00	38.26
7717	N	GLU	B	206	-39.102	-6.866	108.477	1.00	37.06
7718	CA	GLU	B	206	-40.190	-5.900	108.498	1.00	37.10
7719	CB	GLU	B	206	-40.222	-5.132	109.826	1.00	37.62
7720	CG	GLU	B	206	-40.662	-5.969	111.015	1.00	41.16
7721	CD	GLU	B	206	-40.329	-5.306	112.341	1.00	46.39
7722	OE1	GLU	B	206	-41.202	-4.586	112.887	1.00	47.55
7723	OE2	GLU	B	206	-39.190	-5.502	112.838	1.00	48.96
7724	C	GLU	B	206	-40.143	-4.930	107.339	1.00	35.80
7725	O	GLU	B	206	-40.781	-3.870	107.398	1.00	35.31
7726	N	VAL	B	207	-39.372	-5.244	106.295	1.00	34.51
7727	CA	VAL	B	207	-39.441	-4.350	105.150	1.00	33.14
7728	CB	VAL	B	207	-38.121	-4.217	104.303	1.00	33.75
7729	CG1	VAL	B	207	-38.263	-4.763	102.906	1.00	31.71
7730	CG2	VAL	B	207	-36.879	-4.758	105.070	1.00	32.67
7731	C	VAL	B	207	-40.709	-4.733	104.390	1.00	32.32
7732	O	VAL	B	207	-41.032	-5.918	104.242	1.00	31.19
7733	N	PRO	B	208	-41.486	-3.726	104.025	1.00	31.87
7734	CA	PRO	B	208	-42.766	-3.964	103.348	1.00	31.42
7735	CB	PRO	B	208	-43.375	-2.560	103.229	1.00	31.29
7736	CG	PRO	B	208	-42.630	-1.733	104.287	1.00	31.48
7737	CD	PRO	B	208	-41.219	-2.291	104.239	1.00	31.46
7738	C	PRO	B	208	-42.511	-4.546	101.979	1.00	30.79
7739	O	PRO	B	208	-41.451	-4.334	101.378	1.00	29.86
7740	N	LEU	B	209	-43.481	-5.301	101.499	1.00	30.64
7741	CA	LEU	B	209	-43.352	-5.921	100.189	1.00	30.83
7742	CB	LEU	B	209	-43.779	-7.388	100.262	1.00	31.12

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**FIGURE 3 EV**

A	B	C	D	E	F	G	H	I	J
7743	CG	LEU	B	209	-42.801	-8.162	101.171	1.00	33.07
7744	CD1	LEU	B	209	-42.617	-9.617	100.757	1.00	33.85
7745	CD2	LEU	B	209	-43.238	-8.066	102.620	1.00	34.18
7746	C	LEU	B	209	-44.139	-5.177	99.130	1.00	29.88
7747	O	LEU	B	209	-45.274	-4.782	99.353	1.00	30.00
7748	N	ILE	B	210	-43.510	-4.948	97.986	1.00	29.02
7749	CA	ILE	B	210	-44.221	-4.408	96.863	1.00	27.71
7750	CB	ILE	B	210	-43.271	-3.741	95.860	1.00	27.81
7751	CG1	ILE	B	210	-44.040	-3.293	94.610	1.00	26.93
7752	CD1	ILE	B	210	-45.109	-2.253	94.857	1.00	24.74
7753	CG2	ILE	B	210	-42.135	-4.690	95.440	1.00	26.99
7754	C	ILE	B	210	-44.911	-5.632	96.263	1.00	27.48
7755	O	ILE	B	210	-44.317	-6.713	96.207	1.00	27.42
7756	N	GLU	B	211	-46.163	-5.467	95.851	1.00	26.30
7757	CA	GLU	B	211	-46.941	-6.555	95.265	1.00	25.53
7758	CB	GLU	B	211	-48.157	-6.895	96.134	1.00	25.38
7759	CG	GLU	B	211	-47.839	-7.241	97.577	1.00	27.67
7760	CD	GLU	B	211	-49.085	-7.608	98.369	1.00	30.61
7761	OE1	GLU	B	211	-49.242	-8.789	98.686	1.00	30.31
7762	OE2	GLU	B	211	-49.927	-6.717	98.673	1.00	34.16
7763	C	GLU	B	211	-47.417	-6.121	93.888	1.00	24.64
7764	O	GLU	B	211	-47.874	-4.997	93.713	1.00	23.65
7765	N	TYR	B	212	-47.280	-7.005	92.907	1.00	24.26
7766	CA	TYR	B	212	-47.770	-6.714	91.564	1.00	24.09
7767	CB	TYR	B	212	-46.768	-5.908	90.756	1.00	23.87
7768	CG	TYR	B	212	-45.395	-6.515	90.620	1.00	24.60
7769	CD1	TYR	B	212	-45.118	-7.426	89.624	1.00	22.59
7770	CE1	TYR	B	212	-43.872	-7.957	89.480	1.00	24.30
7771	CZ	TYR	B	212	-42.857	-7.574	90.333	1.00	25.32
7772	CH	TYR	B	212	-41.608	-8.119	90.198	1.00	23.27
7773	CE2	TYR	B	212	-43.094	-6.658	91.332	1.00	26.02
7774	CD2	TYR	B	212	-44.362	-6.135	91.471	1.00	25.60
7775	C	TYR	B	212	-48.177	-7.976	90.833	1.00	23.68
7776	O	TYR	B	212	-47.716	-9.062	91.158	1.00	24.00
7777	N	SER	B	213	-49.080	-7.833	89.879	1.00	23.67
7778	CA	SER	B	213	-49.553	-8.972	89.112	1.00	23.81
7779	CB	SER	B	213	-50.856	-8.639	88.400	1.00	23.52
7780	OG	SER	B	213	-51.949	-8.658	89.291	1.00	22.25
7781	C	SER	B	213	-48.524	-9.434	88.087	1.00	24.15
7782	O	SER	B	213	-47.827	-8.615	87.455	1.00	23.38
7783	N	PHE	B	214	-48.395	-10.755	87.980	1.00	24.01
7784	CA	PHE	B	214	-47.565	-11.359	86.938	1.00	23.87
7785	CB	PHE	B	214	-46.350	-12.083	87.486	1.00	23.47
7786	CG	PHE	B	214	-45.334	-12.351	86.441	1.00	22.91
7787	CD1	PHE	B	214	-45.334	-13.555	85.750	1.00	21.91
7788	CE1	PHE	B	214	-44.426	-13.780	84.733	1.00	22.86
7789	CZ	PHE	B	214	-43.508	-12.805	84.398	1.00	21.44
7790	CE2	PHE	B	214	-43.514	-11.604	85.080	1.00	23.24
7791	CD2	PHE	B	214	-44.432	-11.371	86.081	1.00	19.59
7792	C	PHE	B	214	-48.471	-12.308	86.185	1.00	24.16
7793	O	PHE	B	214	-49.007	-13.278	86.767	1.00	24.65

**REPLACEMENT SHEET**  
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**FIGURE 3 EW**

A	B	C	D	E	F	G	H	I	J
7794	N	TYR	B	215	-48.677	-12.011	84.907	1.00	24.05
7795	CA	TYR	B	215	-49.688	-12.722	84.123	1.00	23.44
7796	CB	TYR	B	215	-50.289	-11.798	83.062	1.00	22.72
7797	CG	TYR	B	215	-50.831	-10.575	83.708	1.00	20.73
7798	CD1	TYR	B	215	-50.069	-9.414	83.794	1.00	19.55
7799	CE1	TYR	B	215	-50.557	-8.289	84.444	1.00	16.87
7800	CZ	TYR	B	215	-51.825	-8.330	85.006	1.00	17.23
7801	OH	TYR	B	215	-52.336	-7.212	85.644	1.00	17.71
7802	CE2	TYR	B	215	-52.590	-9.457	84.924	1.00	15.78
7803	CD2	TYR	B	215	-52.096	-10.578	84.285	1.00	19.58
7804	C	TYR	B	215	-49.171	-14.010	83.525	1.00	23.64
7805	O	TYR	B	215	-49.915	-14.987	83.417	1.00	23.38
7806	N	SER	B	216	-47.904	-13.998	83.131	1.00	23.88
7807	CA	SER	B	216	-47.240	-15.197	82.638	1.00	24.66
7808	CB	SER	B	216	-47.407	-16.327	83.648	1.00	24.13
7809	OG	SER	B	216	-46.548	-17.388	83.310	1.00	24.18
7810	C	SER	B	216	-47.771	-15.690	81.308	1.00	25.46
7811	O	SER	B	216	-48.546	-15.001	80.639	1.00	25.75
7812	N	ASP	B	217	-47.370	-16.903	80.936	1.00	25.82
7813	CA	ASP	B	217	-47.908	-17.500	79.722	1.00	27.15
7814	CB	ASP	B	217	-47.469	-18.956	79.581	1.00	28.06
7815	CG	ASP	B	217	-47.928	-19.551	78.282	1.00	31.35
7816	OD1	ASP	B	217	-47.258	-19.269	77.274	1.00	37.45
7817	OD2	ASP	B	217	-48.963	-20.255	78.141	1.00	34.61
7818	C	ASP	B	217	-49.427	-17.452	79.757	1.00	26.37
7819	O	ASP	B	217	-50.027	-17.399	80.827	1.00	26.98
7820	N	GLU	B	218	-50.055	-17.480	78.595	1.00	26.26
7821	CA	GLU	B	218	-51.499	-17.396	78.528	1.00	25.79
7822	CB	GLU	B	218	-51.982	-17.109	77.093	1.00	26.24
7823	CG	GLU	B	218	-52.256	-18.313	76.218	1.00	27.13
7824	CD	GLU	B	218	-53.029	-17.960	74.947	1.00	28.56
7825	OE1	GLU	B	218	-54.252	-18.243	74.880	1.00	27.55
7826	OE2	GLU	B	218	-52.403	-17.432	74.001	1.00	27.21
7827	C	GLU	B	218	-52.169	-18.614	79.157	1.00	25.85
7828	O	GLU	B	218	-53.349	-18.577	79.480	1.00	25.38
7829	N	SER	B	219	-51.386	-19.677	79.345	1.00	26.17
7830	CA	SER	B	219	-51.771	-20.896	80.078	1.00	25.81
7831	CB	SER	B	219	-50.551	-21.825	80.157	1.00	25.94
7832	OG	SER	B	219	-50.585	-22.694	79.064	1.00	29.48
7833	C	SER	B	219	-52.174	-20.654	81.531	1.00	24.81
7834	O	SER	B	219	-53.011	-21.363	82.081	1.00	24.67
7835	N	LEU	B	220	-51.501	-19.724	82.188	1.00	23.40
7836	CA	LEU	B	220	-51.823	-19.460	83.584	1.00	22.91
7837	CB	LEU	B	220	-50.858	-18.421	84.132	1.00	21.98
7838	CG	LEU	B	220	-50.721	-18.394	85.640	1.00	23.38
7839	CD1	LEU	B	220	-49.896	-17.196	86.064	1.00	22.99
7840	CD2	LEU	B	220	-50.102	-19.713	86.163	1.00	21.57
7841	C	LEU	B	220	-53.263	-18.942	83.686	1.00	22.46
7842	O	LEU	B	220	-53.576	-17.906	83.139	1.00	22.55
7843	N	GLN	B	221	-54.128	-19.674	84.370	1.00	21.97
7844	CA	GLN	B	221	-55.515	-19.276	84.522	1.00	21.93

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**FIGURE 3 EX**

A	B	C	D	E	F	G	H	I	J
7845	CB	GLN	B	221	-56.357	-20.463	85.014	1.00	21.65
7846	CG	GLN	B	221	-57.856	-20.174	85.026	1.00	21.33
7847	CD	GLN	B	221	-58.676	-21.412	85.310	1.00	21.73
7848	OE1	GLN	B	221	-58.259	-22.270	86.111	1.00	25.67
7849	NE2	GLN	B	221	-59.807	-21.545	84.631	1.00	17.84
7850	C	GLN	B	221	-55.714	-18.070	85.454	1.00	22.01
7851	O	GLN	B	221	-56.508	-17.186	85.164	1.00	21.81
7852	N	TYR	B	222	-54.978	-18.055	86.565	1.00	21.99
7853	CA	TYR	B	222	-55.059	-16.993	87.563	1.00	21.65
7854	CB	TYR	B	222	-55.367	-17.582	88.938	1.00	21.50
7855	CG	TYR	B	222	-56.785	-18.003	89.152	1.00	20.25
7856	CD1	TYR	B	222	-57.710	-17.138	89.750	1.00	19.35
7857	CE1	TYR	B	222	-59.009	-17.526	89.972	1.00	16.76
7858	CZ	TYR	B	222	-59.399	-18.801	89.597	1.00	20.61
7859	OH	TYR	B	222	-60.700	-19.224	89.798	1.00	20.99
7860	CE2	TYR	B	222	-58.504	-19.667	89.004	1.00	20.11
7861	CD2	TYR	B	222	-57.201	-19.269	88.800	1.00	19.61
7862	C	TYR	B	222	-53.702	-16.343	87.673	1.00	21.62
7863	O	TYR	B	222	-52.711	-17.013	87.929	1.00	21.72
7864	N	PRO	B	223	-53.654	-15.037	87.512	1.00	22.12
7865	CA	PRO	B	223	-52.388	-14.320	87.587	1.00	22.77
7866	CB	PRO	B	223	-52.808	-12.855	87.468	1.00	22.52
7867	CG	PRO	B	223	-54.135	-12.919	86.728	1.00	23.29
7868	CD	PRO	B	223	-54.801	-14.151	87.238	1.00	21.98
7869	C	PRO	B	223	-51.684	-14.572	88.914	1.00	23.77
7870	O	PRO	B	223	-52.296	-14.940	89.935	1.00	23.36
7871	N	LYS	B	224	-50.375	-14.380	88.887	1.00	24.79
7872	CA	LYS	B	224	-49.558	-14.565	90.075	1.00	25.75
7873	CB	LYS	B	224	-48.195	-15.138	89.674	1.00	25.86
7874	CG	LYS	B	224	-47.213	-15.395	90.824	1.00	29.92
7875	CD	LYS	B	224	-45.906	-16.022	90.293	1.00	35.92
7876	CE	LYS	B	224	-44.974	-16.533	91.400	1.00	40.36
7877	NZ	LYS	B	224	-44.164	-17.744	90.943	1.00	42.83
7878	C	LYS	B	224	-49.365	-13.201	90.702	1.00	25.10
7879	O	LYS	B	224	-49.345	-12.184	90.006	1.00	25.60
7880	N	THR	B	225	-49.256	-13.162	92.017	1.00	25.06
7881	CA	THR	B	225	-48.895	-11.923	92.657	1.00	24.78
7882	CB	THR	B	225	-49.696	-11.694	93.905	1.00	24.99
7883	OG1	THR	B	225	-51.081	-11.616	93.574	1.00	22.31
7884	CG2	THR	B	225	-49.345	-10.303	94.475	1.00	23.65
7885	C	THR	B	225	-47.456	-12.046	93.069	1.00	25.30
7886	O	THR	B	225	-47.127	-12.865	93.904	1.00	25.31
7887	N	VAL	B	226	-46.589	-11.239	92.487	1.00	25.52
7888	CA	VAL	B	226	-45.208	-11.289	92.889	1.00	25.68
7889	CB	VAL	B	226	-44.273	-10.831	91.730	1.00	26.20
7890	CG1	VAL	B	226	-42.817	-10.607	92.220	1.00	24.52
7891	CG2	VAL	B	226	-44.317	-11.863	90.607	1.00	23.77
7892	C	VAL	B	226	-45.075	-10.421	94.150	1.00	26.34
7893	O	VAL	B	226	-45.729	-9.390	94.272	1.00	25.24
7894	N	ARG	B	227	-44.277	-10.868	95.111	1.00	26.87
7895	CA	ARG	B	227	-44.108	-10.087	96.335	1.00	28.00



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**FIGURE 3 EY**

A	B	C	D	E	F	G	H	I	J
7896	CB	ARG	B	227	-44.894	-10.714	97.490	1.00	28.35
7897	CG	ARG	B	227	-46.428	-10.718	97.266	1.00	29.92
7898	CD	ARG	B	227	-47.187	-11.624	98.240	1.00	33.73
7899	NE	ARG	B	227	-48.636	-11.569	98.062	1.00	37.78
7900	CZ	ARG	B	227	-49.380	-12.556	97.553	1.00	39.98
7901	NH1	ARG	B	227	-48.828	-13.696	97.132	1.00	41.04
7902	NH2	ARG	B	227	-50.687	-12.397	97.457	1.00	41.02
7903	C	ARG	B	227	-42.637	-10.001	96.664	1.00	27.69
7904	O	ARG	B	227	-41.974	-11.022	96.801	1.00	28.57
7905	N	VAL	B	228	-42.109	-8.790	96.738	1.00	27.18
7906	CA	VAL	B	228	-40.707	-8.634	97.055	1.00	26.68
7907	CB	VAL	B	228	-39.812	-8.503	95.778	1.00	27.22
7908	CG1	VAL	B	228	-38.526	-7.778	96.074	1.00	25.99
7909	CG2	VAL	B	228	-40.560	-7.873	94.618	1.00	27.19
7910	C	VAL	B	228	-40.431	-7.560	98.110	1.00	26.47
7911	O	VAL	B	228	-40.971	-6.448	98.054	1.00	26.20
7912	N	PRO	B	229	-39.645	-7.937	99.118	1.00	25.68
7913	CA	PRO	B	229	-39.241	-6.997	100.165	1.00	25.11
7914	CB	PRO	B	229	-38.229	-7.803	100.985	1.00	25.52
7915	CG	PRO	B	229	-38.704	-9.213	100.850	1.00	24.51
7916	CD	PRO	B	229	-39.129	-9.300	99.361	1.00	25.37
7917	C	PRO	B	229	-38.617	-5.823	99.474	1.00	25.27
7918	O	PRO	B	229	-37.656	-5.953	98.720	1.00	25.93
7919	N	TYR	B	230	-39.200	-4.656	99.673	1.00	25.44
7920	CA	TYR	B	230	-38.730	-3.508	98.954	1.00	25.45
7921	CB	TYR	B	230	-39.409	-3.470	97.584	1.00	25.29
7922	CG	TYR	B	230	-39.032	-2.314	96.666	1.00	23.61
7923	CD1	TYR	B	230	-38.480	-2.546	95.421	1.00	22.82
7924	CE1	TYR	B	230	-38.158	-1.498	94.557	1.00	21.11
7925	CZ	TYR	B	230	-38.413	-0.211	94.939	1.00	22.06
7926	OH	TYR	B	230	-38.103	0.850	94.111	1.00	20.01
7927	CE2	TYR	B	230	-38.974	0.044	96.172	1.00	23.04
7928	CD2	TYR	B	230	-39.283	-1.009	97.026	1.00	24.33
7929	C	TYR	B	230	-39.091	-2.303	99.764	1.00	26.35
7930	O	TYR	B	230	-40.270	-2.016	99.975	1.00	26.45
7931	N	PRO	B	231	-38.079	-1.565	100.197	1.00	26.82
7932	CA	PRO	B	231	-38.331	-0.411	101.041	1.00	26.63
7933	CB	PRO	B	231	-37.055	-0.307	101.880	1.00	26.96
7934	CG	PRO	B	231	-35.973	-1.138	101.101	1.00	27.14
7935	CD	PRO	B	231	-36.651	-1.697	99.853	1.00	26.65
7936	C	PRO	B	231	-38.467	0.834	100.175	1.00	26.53
7937	O	PRO	B	231	-37.522	1.214	99.502	1.00	25.81
7938	N	LYS	B	232	-39.636	1.459	100.198	1.00	26.67
7939	CA	LYS	B	232	-39.768	2.742	99.550	1.00	27.57
7940	CB	LYS	B	232	-41.228	2.982	99.120	1.00	27.68
7941	CG	LYS	B	232	-41.742	1.919	98.113	1.00	27.32
7942	CD	LYS	B	232	-43.216	2.092	97.786	1.00	27.71
7943	CE	LYS	B	232	-43.735	1.092	96.706	1.00	25.66
7944	NZ	LYS	B	232	-43.437	1.574	95.333	1.00	22.44
7945	C	LYS	B	232	-39.235	3.799	100.541	1.00	28.03
7946	O	LYS	B	232	-38.992	3.495	101.720	1.00	28.59

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**FIGURE 3 EZ**

A	B	C	D	E	F	G	H	I	J
7947	N	ALA	B	233	-38.994	5.008	100.064	1.00	28.09
7948	CA	ALA	B	233	-38.473	6.064	100.926	1.00	29.37
7949	CB	ALA	B	233	-38.667	7.408	100.269	1.00	28.92
7950	C	ALA	B	233	-39.062	6.094	102.342	1.00	29.71
7951	O	ALA	B	233	-40.270	6.032	102.518	1.00	30.57
7952	N	GLY	B	234	-38.199	6.187	103.346	1.00	30.05
7953	CA	GLY	B	234	-38.634	6.344	104.720	1.00	30.42
7954	C	GLY	B	234	-39.279	5.141	105.356	1.00	31.45
7955	O	GLY	B	234	-39.805	5.237	106.475	1.00	31.70
7956	N	ALA	B	235	-39.245	4.007	104.654	1.00	31.70
7957	CA	ALA	B	235	-39.823	2.762	105.149	1.00	31.68
7958	CB	ALA	B	235	-40.331	1.930	103.975	1.00	31.98
7959	C	ALA	B	235	-38.750	2.012	105.898	1.00	31.77
7960	O	ALA	B	235	-37.587	2.375	105.804	1.00	31.93
7961	N	VAL	B	236	-39.095	0.962	106.635	1.00	32.57
7962	CA	VAL	B	236	-38.016	0.255	107.316	1.00	33.10
7963	CB	VAL	B	236	-38.446	-0.593	108.537	1.00	33.83
7964	CG1	VAL	B	236	-38.187	-2.087	108.332	1.00	34.90
7965	CG2	VAL	B	236	-39.847	-0.232	109.020	1.00	32.94
7966	C	VAL	B	236	-37.147	-0.525	106.338	1.00	32.85
7967	O	VAL	B	236	-37.652	-1.296	105.497	1.00	32.95
7968	N	ASN	B	237	-35.842	-0.265	106.442	1.00	32.00
7969	CA	ASN	B	237	-34.813	-0.837	105.588	1.00	31.06
7970	CB	ASN	B	237	-33.595	0.081	105.559	1.00	30.94
7971	CG	ASN	B	237	-33.662	1.080	104.448	1.00	29.99
7972	OD1	ASN	B	237	-34.492	0.950	103.567	1.00	30.71
7973	ND2	ASN	B	237	-32.790	2.079	104.470	1.00	28.91
7974	C	ASN	B	237	-34.392	-2.167	106.112	1.00	30.86
7975	O	ASN	B	237	-34.726	-2.508	107.224	1.00	31.35
7976	N	PRO	B	238	-33.736	-2.979	105.295	1.00	31.04
7977	CA	PRO	B	238	-33.165	-4.233	105.797	1.00	31.08
7978	CB	PRO	B	238	-32.615	-4.886	104.519	1.00	30.68
7979	CG	PRO	B	238	-32.384	-3.719	103.608	1.00	30.58
7980	CD	PRO	B	238	-33.575	-2.847	103.837	1.00	30.47
7981	C	PRO	B	238	-32.007	-3.944	106.781	1.00	31.59
7982	O	PRO	B	238	-31.406	-2.867	106.751	1.00	30.75
7983	N	THR	B	239	-31.707	-4.893	107.657	1.00	32.48
7984	CA	THR	B	239	-30.552	-4.737	108.524	1.00	33.35
7985	CB	THR	B	239	-30.894	-4.975	110.012	1.00	33.48
7986	OG1	THR	B	239	-31.549	-6.238	110.171	1.00	33.78
7987	CG2	THR	B	239	-31.926	-3.946	110.511	1.00	32.20
7988	C	THR	B	239	-29.482	-5.697	108.024	1.00	34.05
7989	O	THR	B	239	-29.779	-6.677	107.339	1.00	34.27
7990	N	VAL	B	240	-28.235	-5.402	108.349	1.00	34.30
7991	CA	VAL	B	240	-27.128	-6.198	107.853	1.00	34.60
7992	CB	VAL	B	240	-26.404	-5.449	106.730	1.00	34.08
7993	CG1	VAL	B	240	-25.321	-6.329	106.094	1.00	33.81
7994	CG2	VAL	B	240	-25.830	-4.149	107.263	1.00	33.77
7995	C	VAL	B	240	-26.125	-6.568	108.947	1.00	35.20
7996	O	VAL	B	240	-25.862	-5.793	109.872	1.00	34.33
7997	N	LYS	B	241	-25.611	-7.789	108.849	1.00	36.27

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**FIGURE 3 FA**

A	B	C	D	E	F	G	H	I	J
7998	CA	LYS	B	241	-24.549	-8.253	109.727	1.00	37.18
7999	CB	LYS	B	241	-25.018	-9.402	110.599	1.00	36.94
8000	CG	LYS	B	241	-25.460	-8.988	112.005	1.00	37.33
8001	CD	LYS	B	241	-26.948	-9.027	112.191	1.00	37.13
8002	CE	LYS	B	241	-27.329	-9.127	113.668	1.00	37.02
8003	NZ	LYS	B	241	-27.599	-10.541	114.125	1.00	37.48
8004	C	LYS	B	241	-23.419	-8.704	108.830	1.00	38.02
8005	O	LYS	B	241	-23.654	-9.049	107.666	1.00	38.17
8006	N	PHE	B	242	-22.191	-8.695	109.345	1.00	38.53
8007	CA	PHE	B	242	-21.060	-9.112	108.538	1.00	38.67
8008	CB	PHE	B	242	-20.150	-7.919	108.261	1.00	38.63
8009	CG	PHE	B	242	-19.066	-8.205	107.257	1.00	39.51
8010	CD1	PHE	B	242	-19.311	-8.073	105.900	1.00	38.66
8011	CE1	PHE	B	242	-18.322	-8.335	104.974	1.00	40.21
8012	CZ	PHE	B	242	-17.063	-8.743	105.401	1.00	40.58
8013	CE2	PHE	B	242	-16.807	-8.877	106.753	1.00	39.64
8014	CD2	PHE	B	242	-17.799	-8.612	107.674	1.00	39.14
8015	C	PHE	B	242	-20.307	-10.232	109.243	1.00	39.45
8016	O	PHE	B	242	-20.087	-10.170	110.460	1.00	39.74
8017	N	PHE	B	243	-19.929	-11.264	108.494	1.00	39.56
8018	CA	PHE	B	243	-19.220	-12.394	109.075	1.00	40.01
8019	CB	PHE	B	243	-20.144	-13.583	109.252	1.00	40.24
8020	CG	PHE	B	243	-21.400	-13.294	110.005	1.00	39.63
8021	CD1	PHE	B	243	-22.480	-12.702	109.375	1.00	38.78
8022	CE1	PHE	B	243	-23.652	-12.455	110.063	1.00	38.28
8023	CZ	PHE	B	243	-23.766	-12.811	111.393	1.00	38.50
8024	CE2	PHE	B	243	-22.702	-13.418	112.035	1.00	39.56
8025	CD2	PHE	B	243	-21.520	-13.661	111.333	1.00	39.40
8026	C	PHE	B	243	-18.059	-12.891	108.222	1.00	40.72
8027	O	PHE	B	243	-18.065	-12.752	106.996	1.00	40.63
8028	N	VAL	B	244	-17.060	-13.474	108.879	1.00	41.01
8029	CA	VAL	B	244	-15.986	-14.142	108.164	1.00	41.48
8030	CB	VAL	B	244	-14.733	-13.267	107.963	1.00	41.57
8031	CG1	VAL	B	244	-14.658	-12.196	108.984	1.00	42.82
8032	CG2	VAL	B	244	-13.483	-14.109	107.935	1.00	41.56
8033	C	VAL	B	244	-15.671	-15.495	108.777	1.00	41.65
8034	O	VAL	B	244	-15.418	-15.620	109.978	1.00	42.00
8035	N	VAL	B	245	-15.737	-16.512	107.932	1.00	41.78
8036	CA	VAL	B	245	-15.485	-17.877	108.322	1.00	42.04
8037	CB	VAL	B	245	-16.609	-18.792	107.827	1.00	42.21
8038	CG1	VAL	B	245	-16.801	-18.624	106.312	1.00	41.86
8039	CG2	VAL	B	245	-16.311	-20.244	108.180	1.00	42.17
8040	C	VAL	B	245	-14.175	-18.351	107.702	1.00	42.59
8041	O	VAL	B	245	-13.849	-18.011	106.564	1.00	42.17
8042	N	ASN	B	246	-13.408	-19.115	108.470	1.00	43.43
8043	CA	ASN	B	246	-12.168	-19.689	107.967	1.00	44.19
8044	CB	ASN	B	246	-11.195	-19.985	109.115	1.00	44.00
8045	CG	ASN	B	246	-9.854	-20.526	108.628	1.00	43.62
8046	OD1	ASN	B	246	-9.806	-21.419	107.792	1.00	43.78
8047	ND2	ASN	B	246	-8.767	-19.998	109.168	1.00	40.49
8048	C	ASN	B	246	-12.558	-20.965	107.269	1.00	44.86

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**FIGURE 3 FB**

A	B	C	D	E	F	G	H	I	J
8049	O	ASN	B	246	-13.136	-21.856	107.887	1.00	44.93
8050	N	THR	B	247	-12.275	-21.059	105.975	1.00	46.04
8051	CA	THR	B	247	-12.670	-22.261	105.260	1.00	46.94
8052	CB	THR	B	247	-12.940	-21.969	103.771	1.00	46.97
8053	CG1	THR	B	247	-11.731	-21.577	103.112	1.00	46.64
8054	CG2	THR	B	247	-13.835	-20.749	103.648	1.00	46.00
8055	C	THR	B	247	-11.671	-23.389	105.470	1.00	47.81
8056	O	THR	B	247	-12.043	-24.562	105.448	1.00	48.21
8057	N	ASP	B	248	-10.412	-23.037	105.718	1.00	48.70
8058	CA	ASP	B	248	-9.395	-24.055	105.986	1.00	49.91
8059	CB	ASP	B	248	-7.994	-23.433	106.092	1.00	49.97
8060	CG	ASP	B	248	-7.490	-22.889	104.767	1.00	50.78
8061	OD1	ASP	B	248	-7.971	-23.358	103.712	1.00	50.27
8062	OD2	ASP	B	248	-6.610	-21.995	104.683	1.00	52.28
8063	C	ASP	B	248	-9.711	-24.840	107.264	1.00	50.47
8064	O	ASP	B	248	-9.239	-25.958	107.441	1.00	50.52
8065	N	SER	B	249	-10.519	-24.270	108.154	1.00	51.46
8066	CA	SER	B	249	-10.812	-24.958	109.416	1.00	52.21
8067	CB	SER	B	249	-10.593	-24.021	110.612	1.00	52.18
8068	OG	SER	B	249	-11.825	-23.586	111.162	1.00	53.07
8069	C	SER	B	249	-12.206	-25.600	109.457	1.00	52.53
8070	O	SER	B	249	-12.761	-25.857	110.533	1.00	52.48
8071	N	LEU	B	250	-12.761	-25.854	108.277	1.00	52.90
8072	CA	LEU	B	250	-14.057	-26.504	108.156	1.00	53.25
8073	CB	LEU	B	250	-14.514	-26.511	106.695	1.00	52.98
8074	CG	LEU	B	250	-15.635	-25.572	106.239	1.00	52.88
8075	CD1	LEU	B	250	-15.304	-24.970	104.871	1.00	52.20
8076	CD2	LEU	B	250	-15.905	-24.471	107.244	1.00	51.68
8077	C	LEU	B	250	-13.949	-27.932	108.660	1.00	53.88
8078	O	LEU	B	250	-12.888	-28.552	108.555	1.00	53.74
8079	N	SER	B	251	-15.046	-28.447	109.211	1.00	54.40
8080	CA	SER	B	251	-15.089	-29.821	109.696	1.00	55.11
8081	CB	SER	B	251	-14.851	-29.891	111.198	1.00	55.26
8082	OG	SER	B	251	-15.069	-31.214	111.648	1.00	55.97
8083	C	SER	B	251	-16.425	-30.464	109.373	1.00	55.39
8084	O	SER	B	251	-17.419	-29.778	109.194	1.00	55.53
8085	N	SER	B	252	-16.455	-31.787	109.329	1.00	55.57
8086	CA	SER	B	252	-17.669	-32.477	108.931	1.00	55.82
8087	CB	SER	B	252	-17.300	-33.627	107.996	1.00	55.97
8088	OG	SER	B	252	-16.172	-33.253	107.217	1.00	56.43
8089	C	SER	B	252	-18.469	-32.977	110.128	1.00	55.76
8090	O	SER	B	252	-19.536	-33.572	109.982	1.00	55.88
8091	N	VAL	B	253	-17.954	-32.717	111.318	1.00	55.78
8092	CA	VAL	B	253	-18.588	-33.189	112.537	1.00	55.76
8093	CB	VAL	B	253	-17.629	-34.115	113.328	1.00	55.84
8094	CG1	VAL	B	253	-18.059	-34.238	114.784	1.00	56.15
8095	CG2	VAL	B	253	-17.551	-35.488	112.666	1.00	55.52
8096	C	VAL	B	253	-18.999	-32.004	113.388	1.00	55.72
8097	O	VAL	B	253	-19.652	-32.151	114.424	1.00	55.94
8098	N	THR	B	254	-18.613	-30.819	112.938	1.00	55.49
8099	CA	THR	B	254	-18.944	-29.606	113.658	1.00	55.35

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**FIGURE 3 FC**

A	B	C	D	E	F	G	H	I	J
8100	CB	THR	B	254	-17.771	-29.199	114.577	1.00	55.43
8101	OG1	THR	B	254	-17.432	-27.824	114.355	1.00	55.88
8102	CG2	THR	B	254	-16.519	-29.920	114.165	1.00	56.14
8103	C	THR	B	254	-19.358	-28.463	112.731	1.00	54.81
8104	O	THR	B	254	-18.762	-28.239	111.674	1.00	54.86
8105	N	ASN	B	255	-20.401	-27.748	113.132	1.00	54.08
8106	CA	ASN	B	255	-20.859	-26.609	112.359	1.00	52.98
8107	CB	ASN	B	255	-22.150	-26.032	112.940	1.00	53.13
8108	CG	ASN	B	255	-23.366	-26.816	112.512	1.00	54.12
8109	OD1	ASN	B	255	-23.356	-27.440	111.450	1.00	54.93
8110	ND2	ASN	B	255	-24.418	-26.803	113.327	1.00	58.09
8111	C	ASN	B	255	-19.747	-25.592	112.339	1.00	52.05
8112	O	ASN	B	255	-18.915	-25.562	113.245	1.00	52.18
8113	N	ALA	B	256	-19.704	-24.791	111.284	1.00	50.74
8114	CA	ALA	B	256	-18.674	-23.787	111.133	1.00	49.28
8115	CB	ALA	B	256	-18.558	-23.386	109.680	1.00	49.39
8116	C	ALA	B	256	-19.018	-22.584	111.984	1.00	48.62
8117	O	ALA	B	256	-20.192	-22.248	112.153	1.00	48.43
8118	N	THR	B	257	-18.005	-21.940	112.542	1.00	47.61
8119	CA	THR	B	257	-18.259	-20.730	113.298	1.00	47.02
8120	CB	THR	B	257	-17.503	-20.703	114.659	1.00	47.32
8121	OG1	THR	B	257	-16.787	-19.463	114.797	1.00	46.70
8122	CG2	THR	B	257	-16.407	-21.743	114.681	1.00	47.86
8123	C	THR	B	257	-17.935	-19.518	112.444	1.00	46.26
8124	O	THR	B	257	-16.844	-19.385	111.888	1.00	46.32
8125	N	SER	B	258	-18.912	-18.643	112.320	1.00	45.20
8126	CA	SER	B	258	-18.714	-17.441	111.558	1.00	44.45
8127	CB	SER	B	258	-20.003	-17.070	110.816	1.00	44.73
8128	OG	SER	B	258	-20.632	-18.236	110.294	1.00	44.99
8129	C	SER	B	258	-18.330	-16.382	112.571	1.00	43.81
8130	O	SER	B	258	-18.960	-16.247	113.624	1.00	43.27
8131	N	ILE	B	259	-17.262	-15.661	112.281	1.00	42.93
8132	CA	ILE	B	259	-16.837	-14.633	113.191	1.00	42.31
8133	CB	ILE	B	259	-15.313	-14.454	113.162	1.00	42.54
8134	CG1	ILE	B	259	-14.643	-15.714	113.695	1.00	42.45
8135	CD1	ILE	B	259	-15.288	-16.235	114.960	1.00	42.58
8136	CG2	ILE	B	259	-14.914	-13.273	114.016	1.00	42.31
8137	C	ILE	B	259	-17.506	-13.384	112.721	1.00	41.66
8138	O	ILE	B	259	-17.317	-12.970	111.590	1.00	41.40
8139	N	GLN	B	260	-18.312	-12.794	113.585	1.00	41.02
8140	CA	GLN	B	260	-18.988	-11.570	113.229	1.00	40.51
8141	CB	GLN	B	260	-20.274	-11.409	114.032	1.00	40.31
8142	CG	GLN	B	260	-20.880	-10.028	113.875	1.00	40.06
8143	CD	GLN	B	260	-22.307	-9.943	114.377	1.00	40.09
8144	OE1	GLN	B	260	-22.759	-10.796	115.152	1.00	39.59
8145	NE2	GLN	B	260	-23.020	-8.910	113.941	1.00	37.16
8146	C	GLN	B	260	-18.096	-10.372	113.465	1.00	40.37
8147	O	GLN	B	260	-17.384	-10.296	114.466	1.00	40.89
8148	N	ILE	B	261	-18.122	-9.452	112.512	1.00	40.18
8149	CA	ILE	B	261	-17.454	-8.168	112.618	1.00	39.30
8150	CB	ILE	B	261	-16.673	-7.873	111.353	1.00	39.07

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**FIGURE 3 FD**

A	B	C	D	E	F	G	H	I	J
8151	CG1	ILE	B	261	-15.581	-8.928	111.126	1.00	39.08
8152	CD1	ILE	B	261	-14.550	-8.496	110.109	1.00	36.42
8153	CG2	ILE	B	261	-16.071	-6.482	111.413	1.00	38.83
8154	C	ILE	B	261	-18.594	-7.173	112.726	1.00	39.53
8155	O	ILE	B	261	-19.439	-7.097	111.827	1.00	39.84
8156	N	THR	B	262	-18.662	-6.431	113.825	1.00	38.85
8157	CA	THR	B	262	-19.733	-5.457	113.961	1.00	38.23
8158	CB	THR	B	262	-20.106	-5.288	115.426	1.00	38.47
8159	OG1	THR	B	262	-18.910	-5.066	116.169	1.00	37.80
8160	CG2	THR	B	262	-20.649	-6.597	115.998	1.00	38.72
8161	C	THR	B	262	-19.341	-4.109	113.372	1.00	37.66
8162	O	THR	B	262	-18.165	-3.766	113.279	1.00	37.65
8163	N	ALA	B	263	-20.344	-3.343	112.981	1.00	37.26
8164	CA	ALA	B	263	-20.136	-2.017	112.422	1.00	36.78
8165	CB	ALA	B	263	-21.413	-1.555	111.830	1.00	37.01
8166	C	ALA	B	263	-19.715	-1.046	113.517	1.00	36.64
8167	O	ALA	B	263	-19.971	-1.282	114.688	1.00	36.85
8168	N	PRO	B	264	-19.098	0.065	113.148	1.00	36.52
8169	CA	PRO	B	264	-18.688	1.050	114.147	1.00	36.33
8170	CB	PRO	B	264	-18.139	2.199	113.308	1.00	36.24
8171	CG	PRO	B	264	-17.890	1.641	111.959	1.00	35.73
8172	CD	PRO	B	264	-18.765	0.474	111.776	1.00	36.33
8173	C	PRO	B	264	-19.901	1.545	114.926	1.00	37.00
8174	O	PRO	B	264	-21.002	1.697	114.355	1.00	36.67
8175	N	ALA	B	265	-19.697	1.794	116.220	1.00	37.13
8176	CA	ALA	B	265	-20.729	2.350	117.086	1.00	37.00
8177	CB	ALA	B	265	-20.136	2.696	118.461	1.00	37.56
8178	C	ALA	B	265	-21.364	3.585	116.455	1.00	37.13
8179	O	ALA	B	265	-22.561	3.824	116.609	1.00	36.95
8180	N	SER	B	266	-20.577	4.369	115.726	1.00	37.15
8181	CA	SER	B	266	-21.138	5.551	115.097	1.00	37.43
8182	CB	SER	B	266	-20.047	6.469	114.592	1.00	37.04
8183	OG	SER	B	266	-19.411	5.880	113.484	1.00	38.44
8184	C	SER	B	266	-22.068	5.178	113.936	1.00	37.94
8185	O	SER	B	266	-22.594	6.046	113.244	1.00	37.98
8186	N	MET	B	267	-22.238	3.887	113.702	1.00	38.09
8187	CA	MET	B	267	-23.175	3.443	112.688	1.00	38.48
8188	CB	MET	B	267	-22.513	2.483	111.691	1.00	38.25
8189	CG	MET	B	267	-21.512	3.168	110.770	1.00	38.46
8190	SD	MET	B	267	-22.322	3.969	109.403	1.00	37.89
8191	CE	MET	B	267	-21.184	5.222	108.957	1.00	34.81
8192	C	MET	B	267	-24.285	2.747	113.437	1.00	38.49
8193	O	MET	B	267	-25.454	2.946	113.144	1.00	38.45
8194	N	LEU	B	268	-23.914	1.966	114.443	1.00	38.76
8195	CA	LEU	B	268	-24.910	1.222	115.198	1.00	39.23
8196	CB	LEU	B	268	-24.252	0.337	116.244	1.00	39.27
8197	CG	LEU	B	268	-23.630	-0.970	115.789	1.00	39.59
8198	CD1	LEU	B	268	-23.026	-1.638	117.009	1.00	40.45
8199	CD2	LEU	B	268	-24.656	-1.873	115.122	1.00	38.79
8200	C	LEU	B	268	-25.874	2.155	115.884	1.00	39.28
8201	O	LEU	B	268	-26.848	1.725	116.484	1.00	39.39

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**FIGURE 3 FE**

A	B	C	D	E	F	G	H	I	J
8202	N	ILE	B	269	-25.585	3.441	115.795	1.00	39.69
8203	CA	ILE	B	269	-26.419	4.453	116.410	1.00	40.33
8204	CB	ILE	B	269	-25.674	5.825	116.370	1.00	40.48
8205	CG1	ILE	B	269	-26.105	6.690	117.535	1.00	40.65
8206	CD1	ILE	B	269	-25.847	6.028	118.865	1.00	42.72
8207	CG2	ILE	B	269	-25.841	6.532	115.040	1.00	41.25
8208	C	ILE	B	269	-27.827	4.498	115.770	1.00	40.34
8209	O	ILE	B	269	-28.841	4.679	116.459	1.00	40.41
8210	N	GLY	B	270	-27.890	4.288	114.459	1.00	39.85
8211	CA	GLY	B	270	-29.164	4.285	113.751	1.00	39.12
8212	C	GLY	B	270	-29.196	3.299	112.589	1.00	38.12
8213	O	GLY	B	270	-28.502	2.277	112.616	1.00	37.74
8214	N	ASP	B	271	-30.035	3.593	111.594	1.00	36.92
8215	CA	ASP	B	271	-30.104	2.791	110.388	1.00	36.02
8216	CB	ASP	B	271	-31.312	3.179	109.547	1.00	35.99
8217	CG	ASP	B	271	-32.594	2.530	110.034	1.00	36.39
8218	OD1	ASP	B	271	-32.509	1.672	110.959	1.00	33.33
8219	OD2	ASP	B	271	-33.729	2.818	109.548	1.00	34.54
8220	C	ASP	B	271	-28.831	3.069	109.608	1.00	35.29
8221	O	ASP	B	271	-28.382	4.206	109.515	1.00	35.40
8222	N	HIS	B	272	-28.223	2.031	109.065	1.00	33.91
8223	CA	HIS	B	272	-27.004	2.248	108.305	1.00	33.12
8224	CB	HIS	B	272	-25.795	2.096	109.227	1.00	31.99
8225	CG	HIS	B	272	-25.746	0.772	109.899	1.00	30.02
8226	ND1	HIS	B	272	-26.486	0.489	111.028	1.00	30.83
8227	CE1	HIS	B	272	-26.273	-0.764	111.388	1.00	29.81
8228	NE2	HIS	B	272	-25.427	-1.303	110.530	1.00	30.16
8229	CD2	HIS	B	272	-25.097	-0.368	109.578	1.00	28.42
8230	C	HIS	B	272	-26.946	1.174	107.234	1.00	32.53
8231	O	HIS	B	272	-27.816	0.337	107.186	1.00	32.22
8232	N	TYR	B	273	-25.903	1.205	106.411	1.00	32.18
8233	CA	TYR	B	273	-25.664	0.185	105.409	1.00	32.39
8234	CB	TYR	B	273	-25.943	0.727	104.005	1.00	31.52
8235	CG	TYR	B	273	-27.277	1.379	103.776	1.00	30.43
8236	CD1	TYR	B	273	-28.438	0.637	103.736	1.00	28.06
8237	CE1	TYR	B	273	-29.655	1.241	103.480	1.00	29.01
8238	CZ	TYR	B	273	-29.708	2.587	103.242	1.00	28.63
8239	OH	TYR	B	273	-30.907	3.211	102.998	1.00	29.60
8240	CE2	TYR	B	273	-28.562	3.339	103.265	1.00	30.14
8241	CD2	TYR	B	273	-27.357	2.735	103.523	1.00	29.36
8242	C	TYR	B	273	-24.199	-0.217	105.347	1.00	33.08
8243	O	TYR	B	273	-23.299	0.567	105.694	1.00	32.62
8244	N	LEU	B	274	-23.983	-1.431	104.841	1.00	33.48
8245	CA	LEU	B	274	-22.670	-1.916	104.490	1.00	34.29
8246	CB	LEU	B	274	-22.584	-3.422	104.690	1.00	34.01
8247	CG	LEU	B	274	-21.233	-4.065	104.329	1.00	35.66
8248	CD1	LEU	B	274	-20.163	-3.758	105.396	1.00	34.34
8249	CD2	LEU	B	274	-21.383	-5.577	104.147	1.00	34.70
8250	C	LEU	B	274	-22.592	-1.570	103.022	1.00	35.14
8251	O	LEU	B	274	-23.398	-2.041	102.234	1.00	35.22
8252	N	CYS	B	275	-21.633	-0.743	102.637	1.00	36.49

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**FIGURE 3 FF**

A	B	C	D	E	F	G	H	I	J
8253	CA	CYS	B	275	-21.598	-0.284	101.264	1.00	38.00
8254	CB	CYS	B	275	-21.766	1.233	101.203	1.00	37.89
8255	SG	CYS	B	275	-20.464	2.141	102.060	1.00	41.73
8256	C	CYS	B	275	-20.365	-0.738	100.485	1.00	38.60
8257	O	CYS	B	275	-20.330	-0.615	99.266	1.00	38.77
8258	N	ASP	B	276	-19.350	-1.246	101.175	1.00	39.13
8259	CA	ASP	B	276	-18.185	-1.764	100.469	1.00	39.49
8260	CB	ASP	B	276	-17.294	-0.654	99.942	1.00	39.64
8261	CG	ASP	B	276	-16.074	-1.199	99.235	1.00	41.05
8262	OD1	ASP	B	276	-15.992	-1.067	98.000	1.00	43.44
8263	OD2	ASP	B	276	-15.153	-1.800	99.829	1.00	42.89
8264	C	ASP	B	276	-17.360	-2.750	101.284	1.00	39.39
8265	O	ASP	B	276	-17.216	-2.592	102.493	1.00	39.54
8266	N	VAL	B	277	-16.831	-3.763	100.599	1.00	38.98
8267	CA	VAL	B	277	-16.019	-4.799	101.206	1.00	38.77
8268	CB	VAL	B	277	-16.788	-6.124	101.324	1.00	39.05
8269	CG1	VAL	B	277	-15.901	-7.199	101.921	1.00	39.22
8270	CG2	VAL	B	277	-18.049	-5.955	102.168	1.00	37.97
8271	C	VAL	B	277	-14.786	-5.042	100.355	1.00	39.05
8272	O	VAL	B	277	-14.876	-5.521	99.234	1.00	39.52
8273	N	THR	B	278	-13.615	-4.719	100.882	1.00	39.00
8274	CA	THR	B	278	-12.413	-4.928	100.116	1.00	37.98
8275	CB	THR	B	278	-11.909	-3.594	99.597	1.00	38.19
8276	OG1	THR	B	278	-12.815	-3.088	98.603	1.00	38.23
8277	CG2	THR	B	278	-10.607	-3.795	98.848	1.00	37.09
8278	C	THR	B	278	-11.326	-5.595	100.954	1.00	38.18
8279	O	THR	B	278	-10.843	-5.021	101.938	1.00	38.22
8280	N	TRP	B	279	-10.936	-6.804	100.564	1.00	37.09
8281	CA	TRP	B	279	-9.850	-7.486	101.250	1.00	36.31
8282	CB	TRP	B	279	-9.733	-8.923	100.759	1.00	35.92
8283	CG	TRP	B	279	-10.672	-9.858	101.423	1.00	34.21
8284	CD1	TRP	B	279	-11.853	-10.320	100.938	1.00	33.31
8285	NE1	TRP	B	279	-12.438	-11.178	101.841	1.00	32.80
8286	CE2	TRP	B	279	-11.618	-11.285	102.933	1.00	33.27
8287	CD2	TRP	B	279	-10.502	-10.461	102.704	1.00	33.83
8288	CE3	TRP	B	279	-9.509	-10.394	103.683	1.00	33.15
8289	CZ3	TRP	B	279	-9.663	-11.125	104.826	1.00	34.15
8290	CH2	TRP	B	279	-10.784	-11.926	105.027	1.00	34.29
8291	CZ2	TRP	B	279	-11.772	-12.021	104.092	1.00	34.17
8292	C	TRP	B	279	-8.546	-6.737	100.984	1.00	36.37
8293	O	TRP	B	279	-8.279	-6.313	99.861	1.00	35.97
8294	N	ALA	B	280	-7.728	-6.564	102.010	1.00	35.86
8295	CA	ALA	B	280	-6.475	-5.858	101.796	1.00	36.13
8296	CB	ALA	B	280	-6.240	-4.819	102.902	1.00	36.41
8297	C	ALA	B	280	-5.298	-6.821	101.703	1.00	35.57
8298	O	ALA	B	280	-4.365	-6.586	100.960	1.00	34.87
8299	N	THR	B	281	-5.363	-7.904	102.470	1.00	36.03
8300	CA	THR	B	281	-4.296	-8.899	102.519	1.00	36.43
8301	CB	THR	B	281	-3.281	-8.600	103.649	1.00	36.45
8302	OG1	THR	B	281	-3.806	-9.079	104.897	1.00	35.74
8303	CG2	THR	B	281	-3.122	-7.116	103.887	1.00	35.62



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**FIGURE 3 FG**

A	B	C	D	E	F	G	H	I	J
8304	C	THR	B	281	-4.950	-10.211	102.852	1.00	36.84
8305	O	THR	B	281	-6.161	-10.304	102.902	1.00	37.00
8306	N	GLN	B	282	-4.142	-11.223	103.115	1.00	37.40
8307	CA	GLN	B	282	-4.672	-12.520	103.486	1.00	38.02
8308	CB	GLN	B	282	-3.538	-13.545	103.564	1.00	37.95
8309	CG	GLN	B	282	-2.706	-13.655	102.289	1.00	38.65
8310	CD	GLN	B	282	-3.526	-14.069	101.062	1.00	38.38
8311	OE1	GLN	B	282	-4.628	-14.626	101.190	1.00	38.79
8312	NE2	GLN	B	282	-2.988	-13.800	99.878	1.00	35.23
8313	C	GLN	B	282	-5.338	-12.437	104.840	1.00	38.28
8314	O	GLN	B	282	-6.153	-13.287	105.194	1.00	38.52
8315	N	GLU	B	283	-4.986	-11.412	105.604	1.00	38.86
8316	CA	GLU	B	283	-5.453	-11.328	106.976	1.00	39.52
8317	CB	GLU	B	283	-4.291	-11.653	107.925	1.00	39.66
8318	CG	GLU	B	283	-3.972	-13.137	108.032	1.00	41.29
8319	CD	GLU	B	283	-2.684	-13.415	108.804	1.00	44.21
8320	OE1	GLU	B	283	-2.355	-14.604	109.007	1.00	44.57
8321	OE2	GLU	B	283	-1.994	-12.444	109.197	1.00	45.27
8322	C	GLU	B	283	-6.067	-9.987	107.354	1.00	39.44
8323	O	GLU	B	283	-6.421	-9.763	108.518	1.00	39.54
8324	N	ARG	B	284	-6.194	-9.092	106.385	1.00	39.32
8325	CA	ARG	B	284	-6.752	-7.782	106.672	1.00	39.16
8326	CB	ARG	B	284	-5.641	-6.750	106.734	1.00	39.23
8327	CG	ARG	B	284	-6.114	-5.329	106.614	1.00	39.03
8328	CD	ARG	B	284	-4.983	-4.351	106.729	1.00	39.98
8329	NE	ARG	B	284	-4.252	-4.593	107.974	1.00	41.16
8330	CZ	ARG	B	284	-2.970	-4.328	108.146	1.00	41.27
8331	NH1	ARG	B	284	-2.397	-4.579	109.316	1.00	42.14
8332	NH2	ARG	B	284	-2.263	-3.803	107.157	1.00	39.73
8333	C	ARG	B	284	-7.820	-7.344	105.673	1.00	39.07
8334	O	ARG	B	284	-7.554	-7.152	104.484	1.00	39.65
8335	N	ILE	B	285	-9.031	-7.158	106.173	1.00	38.68
8336	CA	ILE	B	285	-10.131	-6.749	105.327	1.00	37.92
8337	CB	ILE	B	285	-11.241	-7.792	105.399	1.00	37.87
8338	CG1	ILE	B	285	-12.387	-7.434	104.437	1.00	38.16
8339	CD1	ILE	B	285	-13.473	-8.491	104.376	1.00	36.63
8340	CG2	ILE	B	285	-11.727	-7.933	106.825	1.00	37.11
8341	C	ILE	B	285	-10.671	-5.393	105.731	1.00	37.86
8342	O	ILE	B	285	-10.762	-5.074	106.926	1.00	37.77
8343	N	SER	B	286	-11.016	-4.587	104.731	1.00	37.21
8344	CA	SER	B	286	-11.661	-3.313	104.994	1.00	37.35
8345	CB	SER	B	286	-11.010	-2.176	104.197	1.00	37.02
8346	OG	SER	B	286	-11.201	-2.342	102.812	1.00	37.16
8347	C	SER	B	286	-13.167	-3.376	104.709	1.00	37.41
8348	O	SER	B	286	-13.595	-3.962	103.703	1.00	37.72
8349	N	LEU	B	287	-13.956	-2.801	105.619	1.00	37.62
8350	CA	LEU	B	287	-15.399	-2.633	105.441	1.00	37.40
8351	CB	LEU	B	287	-16.196	-3.198	106.604	1.00	37.50
8352	CG	LEU	B	287	-16.435	-4.694	106.778	1.00	37.77
8353	CD1	LEU	B	287	-15.702	-5.185	108.004	1.00	38.51
8354	CD2	LEU	B	287	-16.094	-5.500	105.510	1.00	35.92

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**FIGURE 3 FH**

A	B	C D E	F	G	H	I	J
8355	C	LEU B 287	-15.675	-1.151	105.421	1.00	37.77
8356	O	LEU B 287	-15.028	-0.384	106.145	1.00	37.69
8357	N	GLN B 288	-16.617	-0.735	104.582	1.00	37.44
8358	CA	GLN B 288	-17.032	0.655	104.565	1.00	37.10
8359	CB	GLN B 288	-16.744	1.327	103.232	1.00	37.38
8360	CG	GLN B 288	-15.392	1.975	103.182	1.00	38.66
8361	CD	GLN B 288	-15.117	2.632	101.861	1.00	40.12
8362	OE1	GLN B 288	-15.178	3.849	101.744	1.00	42.07
8363	NE2	GLN B 288	-14.819	1.826	100.850	1.00	42.14
8364	C	GLN B 288	-18.507	0.684	104.889	1.00	36.53
8365	O	GLN B 288	-19.287	-0.051	104.299	1.00	36.84
8366	N	TRP B 289	-18.878	1.520	105.851	1.00	35.59
8367	CA	TRP B 289	-20.241	1.586	106.310	1.00	34.92
8368	CB	TRP B 289	-20.327	1.326	107.815	1.00	34.68
8369	CG	TRP B 289	-19.831	-0.019	108.238	1.00	33.12
8370	CD1	TRP B 289	-18.556	-0.359	108.516	1.00	31.84
8371	NE1	TRP B 289	-18.483	-1.685	108.873	1.00	31.97
8372	CE2	TRP B 289	-19.738	-2.223	108.837	1.00	31.75
8373	CD2	TRP B 289	-20.615	-1.201	108.444	1.00	32.72
8374	CE3	TRP B 289	-21.974	-1.501	108.326	1.00	32.48
8375	CZ3	TRP B 289	-22.399	-2.782	108.607	1.00	32.80
8376	CH2	TRP B 289	-21.502	-3.768	109.003	1.00	32.08
8377	CZ2	TRP B 289	-20.169	-3.507	109.131	1.00	31.47
8378	C	TRP B 289	-20.797	2.943	105.993	1.00	35.14
8379	O	TRP B 289	-20.059	3.909	105.856	1.00	35.72
8380	N	LEU B 290	-22.112	3.014	105.903	1.00	35.19
8381	CA	LEU B 290	-22.780	4.237	105.509	1.00	35.28
8382	CB	LEU B 290	-23.074	4.178	104.014	1.00	35.14
8383	CG	LEU B 290	-23.255	5.463	103.218	1.00	36.86
8384	CD1	LEU B 290	-24.047	5.191	101.918	1.00	34.86
8385	CD2	LEU B 290	-23.933	6.510	104.064	1.00	38.04
8386	C	LEU B 290	-24.086	4.385	106.277	1.00	34.83
8387	O	LEU B 290	-24.895	3.459	106.353	1.00	33.83
8388	N	ARG B 291	-24.276	5.562	106.854	1.00	35.32
8389	CA	ARG B 291	-25.508	5.874	107.578	1.00	35.73
8390	CB	ARG B 291	-25.315	7.156	108.375	1.00	36.02
8391	CG	ARG B 291	-24.458	7.008	109.591	1.00	37.90
8392	CD	ARG B 291	-24.452	8.252	110.451	1.00	39.63
8393	NE	ARG B 291	-23.770	8.015	111.708	1.00	38.90
8394	CZ	ARG B 291	-23.265	8.973	112.459	1.00	40.15
8395	NH1	ARG B 291	-22.643	8.666	113.592	1.00	38.43
8396	NH2	ARG B 291	-23.374	10.236	112.071	1.00	38.95
8397	C	ARG B 291	-26.677	6.090	106.617	1.00	35.27
8398	O	ARG B 291	-26.501	6.598	105.513	1.00	34.88
8399	N	ARG B 292	-27.880	5.741	107.058	1.00	35.74
8400	CA	ARG B 292	-29.075	5.944	106.239	1.00	35.22
8401	CB	ARG B 292	-30.348	5.581	107.007	1.00	35.20
8402	CG	ARG B 292	-31.498	5.216	106.064	1.00	34.72
8403	CD	ARG B 292	-32.801	4.879	106.741	1.00	33.40
8404	NE	ARG B 292	-33.919	4.915	105.804	1.00	34.54
8405	CZ	ARG B 292	-34.938	4.070	105.848	1.00	35.08

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**FIGURE 3 FI**

A	B	C	D	E	F	G	H	I	J
8406	NH1	ARG	B	292	-35.929	4.151	104.958	1.00	35.28
8407	NH2	ARG	B	292	-34.961	3.126	106.779	1.00	34.28
8408	C	ARG	B	292	-29.134	7.361	105.660	1.00	35.33
8409	O	ARG	B	292	-29.630	7.568	104.557	1.00	35.36
8410	N	ILE	B	293	-28.651	8.347	106.403	1.00	35.34
8411	CA	ILE	B	293	-28.485	9.662	105.816	1.00	35.81
8412	CB	ILE	B	293	-28.683	10.794	106.857	1.00	36.34
8413	CG1	ILE	B	293	-30.157	10.870	107.251	1.00	36.47
8414	CD1	ILE	B	293	-30.379	11.319	108.687	1.00	40.52
8415	CG2	ILE	B	293	-28.306	12.135	106.266	1.00	35.62
8416	C	ILE	B	293	-27.077	9.574	105.265	1.00	36.01
8417	O	ILE	B	293	-26.093	9.654	105.989	1.00	36.31
8418	N	GLN	B	294	-27.001	9.346	103.965	1.00	36.43
8419	CA	GLN	B	294	-25.757	9.005	103.287	1.00	36.06
8420	CB	GLN	B	294	-26.093	8.349	101.938	1.00	36.08
8421	CG	GLN	B	294	-26.959	7.108	102.114	1.00	34.91
8422	CD	GLN	B	294	-27.491	6.560	100.809	1.00	34.61
8423	OE1	GLN	B	294	-26.843	6.672	99.768	1.00	33.16
8424	NE2	GLN	B	294	-28.679	5.959	100.863	1.00	35.21
8425	C	GLN	B	294	-24.735	10.119	103.112	1.00	36.09
8426	O	GLN	B	294	-24.142	10.264	102.044	1.00	35.47
8427	N	ASN	B	295	-24.509	10.891	104.165	1.00	36.56
8428	CA	ASN	B	295	-23.471	11.917	104.111	1.00	36.97
8429	CB	ASN	B	295	-24.038	13.316	104.341	1.00	37.10
8430	CG	ASN	B	295	-24.717	13.480	105.691	1.00	37.40
8431	OD1	ASN	B	295	-24.703	12.590	106.552	1.00	35.93
8432	ND2	ASN	B	295	-25.325	14.642	105.877	1.00	43.29
8433	C	ASN	B	295	-22.326	11.614	105.073	1.00	37.07
8434	O	ASN	B	295	-21.448	12.444	105.305	1.00	36.84
8435	N	TYR	B	296	-22.337	10.400	105.610	1.00	37.36
8436	CA	TYR	B	296	-21.336	9.978	106.580	1.00	37.65
8437	CB	TYR	B	296	-21.884	10.220	107.987	1.00	37.75
8438	CG	TYR	B	296	-20.871	10.152	109.109	1.00	39.31
8439	CD1	TYR	B	296	-20.027	11.220	109.373	1.00	41.42
8440	CE1	TYR	B	296	-19.116	11.181	110.409	1.00	42.77
8441	CZ	TYR	B	296	-19.038	10.057	111.206	1.00	43.87
8442	OH	TYR	B	296	-18.131	10.018	112.245	1.00	47.04
8443	CE2	TYR	B	296	-19.867	8.981	110.970	1.00	43.23
8444	CD2	TYR	B	296	-20.781	9.037	109.923	1.00	41.78
8445	C	TYR	B	296	-20.998	8.498	106.417	1.00	37.35
8446	O	TYR	B	296	-21.827	7.637	106.653	1.00	37.45
8447	N	SER	B	297	-19.784	8.189	105.998	1.00	37.67
8448	CA	SER	B	297	-19.400	6.787	105.913	1.00	37.97
8449	CB	SER	B	297	-19.227	6.338	104.461	1.00	37.31
8450	OG	SER	B	297	-18.367	7.212	103.779	1.00	37.00
8451	C	SER	B	297	-18.118	6.569	106.677	1.00	38.36
8452	O	SER	B	297	-17.285	7.462	106.771	1.00	39.01
8453	N	VAL	B	298	-17.957	5.376	107.219	1.00	38.97
8454	CA	VAL	B	298	-16.748	5.050	107.936	1.00	39.42
8455	CB	VAL	B	298	-17.026	4.754	109.412	1.00	39.31
8456	CG1	VAL	B	298	-17.694	5.918	110.095	1.00	39.19

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**FIGURE 3 FJ**

A	B	C	D	E	F	G	H	I	J
8457	CG2	VAL	B	298	-15.730	4.393	110.106	1.00	39.59
8458	C	VAL	B	298	-16.116	3.788	107.379	1.00	39.78
8459	O	VAL	B	298	-16.796	2.781	107.193	1.00	38.93
8460	N	MET	B	299	-14.809	3.840	107.130	1.00	40.58
8461	CA	MET	B	299	-14.084	2.641	106.752	1.00	41.10
8462	CB	MET	B	299	-13.045	2.919	105.678	1.00	40.94
8463	CG	MET	B	299	-12.122	1.725	105.482	1.00	42.37
8464	SD	MET	B	299	-10.984	1.874	104.140	1.00	45.66
8465	CE	MET	B	299	-10.533	3.507	104.278	1.00	45.39
8466	C	MET	B	299	-13.390	2.037	107.961	1.00	41.61
8467	O	MET	B	299	-12.568	2.691	108.603	1.00	42.63
8468	N	ASP	B	300	-13.746	0.807	108.295	1.00	41.81
8469	CA	ASP	B	300	-13.031	0.064	109.314	1.00	42.44
8470	CB	ASP	B	300	-13.962	-0.857	110.120	1.00	42.60
8471	CG	ASP	B	300	-14.521	-0.197	111.392	1.00	44.17
8472	OD1	ASP	B	300	-15.580	-0.658	111.884	1.00	45.87
8473	OD2	ASP	B	300	-13.981	0.768	111.978	1.00	43.48
8474	C	ASP	B	300	-12.001	-0.789	108.567	1.00	42.81
8475	O	ASP	B	300	-12.163	-1.091	107.371	1.00	42.31
8476	N	ILE	B	301	-10.939	-1.161	109.271	1.00	42.82
8477	CA	ILE	B	301	-9.903	-2.013	108.719	1.00	43.40
8478	CB	ILE	B	301	-8.680	-1.170	108.381	1.00	43.02
8479	CG1	ILE	B	301	-9.016	-0.280	107.189	1.00	41.96
8480	CD1	ILE	B	301	-8.020	0.789	106.904	1.00	41.81
8481	CG2	ILE	B	301	-7.495	-2.049	108.043	1.00	43.20
8482	C	ILE	B	301	-9.642	-3.065	109.775	1.00	44.39
8483	O	ILE	B	301	-9.149	-2.756	110.853	1.00	44.81
8484	N	CYS	B	302	-10.023	-4.303	109.488	1.00	45.55
8485	CA	CYS	B	302	-9.973	-5.363	110.497	1.00	46.76
8486	CB	CYS	B	302	-11.351	-6.028	110.644	1.00	46.70
8487	SG	CYS	B	302	-12.758	-4.879	110.687	1.00	49.41
8488	C	CYS	B	302	-8.911	-6.438	110.260	1.00	47.31
8489	O	CYS	B	302	-8.980	-7.221	109.299	1.00	47.48
8490	N	ASP	B	303	-7.934	-6.483	111.158	1.00	47.98
8491	CA	ASP	B	303	-6.888	-7.484	111.093	1.00	48.36
8492	CB	ASP	B	303	-5.607	-6.955	111.734	1.00	48.96
8493	CG	ASP	B	303	-4.750	-6.172	110.758	1.00	50.88
8494	OD1	ASP	B	303	-5.265	-5.232	110.121	1.00	53.09
8495	OD2	ASP	B	303	-3.543	-6.424	110.554	1.00	54.16
8496	C	ASP	B	303	-7.363	-8.755	111.786	1.00	48.00
8497	O	ASP	B	303	-8.117	-8.692	112.743	1.00	47.91
8498	N	TYR	B	304	-6.950	-9.908	111.269	1.00	48.08
8499	CA	TYR	B	304	-7.288	-11.200	111.857	1.00	47.82
8500	CB	TYR	B	304	-7.167	-12.283	110.794	1.00	47.24
8501	CG	TYR	B	304	-7.213	-13.681	111.340	1.00	45.86
8502	CD1	TYR	B	304	-8.400	-14.218	111.796	1.00	44.73
8503	CE1	TYR	B	304	-8.458	-15.489	112.298	1.00	44.26
8504	CZ	TYR	B	304	-7.317	-16.256	112.356	1.00	43.75
8505	OH	TYR	B	304	-7.406	-17.528	112.858	1.00	45.04
8506	CE2	TYR	B	304	-6.118	-15.757	111.916	1.00	43.24
8507	CD2	TYR	B	304	-6.069	-14.463	111.413	1.00	44.57

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**FIGURE 3 FK**

A	B	C D E	F	G	H	I	J
8508	C	TYR B 304	-6.313	-11.488	113.012	1.00	48.33
8509	O	TYR B 304	-5.176	-11.027	112.975	1.00	47.62
8510	N	ASP B 305	-6.753	-12.255	114.014	1.00	49.23
8511	CA	ASP B 305	-5.940	-12.534	115.209	1.00	50.27
8512	CB	ASP B 305	-6.649	-12.078	116.498	1.00	50.05
8513	CG	ASP B 305	-5.713	-12.053	117.732	1.00	50.37
8514	OD1	ASP B 305	-5.369	-13.129	118.279	1.00	49.56
8515	OD2	ASP B 305	-5.288	-10.996	118.240	1.00	49.17
8516	C	ASP B 305	-5.571	-13.996	115.331	1.00	51.26
8517	O	ASP B 305	-6.420	-14.832	115.627	1.00	51.15
8518	N	GLU B 306	-4.288	-14.281	115.108	1.00	52.94
8519	CA	GLU B 306	-3.722	-15.619	115.228	1.00	54.25
8520	CB	GLU B 306	-2.197	-15.522	115.380	1.00	54.85
8521	CG	GLU B 306	-1.438	-15.115	114.130	1.00	56.89
8522	CD	GLU B 306	-0.657	-16.271	113.543	1.00	59.93
8523	OE1	GLU B 306	0.528	-16.072	113.180	1.00	61.01
8524	OE2	GLU B 306	-1.227	-17.384	113.460	1.00	61.35
8525	C	GLU B 306	-4.268	-16.341	116.447	1.00	54.31
8526	O	GLU B 306	-4.751	-17.460	116.342	1.00	54.14
8527	N	SER B 307	-4.182	-15.699	117.609	1.00	54.55
8528	CA	SER B 307	-4.638	-16.342	118.842	1.00	54.92
8529	CB	SER B 307	-3.919	-15.790	120.090	1.00	54.93
8530	OG	SER B 307	-3.686	-14.391	120.021	1.00	54.98
8531	C	SER B 307	-6.155	-16.344	119.016	1.00	54.94
8532	O	SER B 307	-6.747	-17.396	119.262	1.00	55.07
8533	N	SER B 308	-6.787	-15.180	118.896	1.00	55.09
8534	CA	SER B 308	-8.242	-15.116	119.028	1.00	55.20
8535	CB	SER B 308	-8.760	-13.703	118.753	1.00	55.20
8536	OG	SER B 308	-8.050	-12.698	119.459	1.00	56.52
8537	C	SER B 308	-8.907	-16.064	118.028	1.00	54.99
8538	O	SER B 308	-9.639	-16.985	118.394	1.00	55.23
8539	N	GLY B 309	-8.624	-15.839	116.752	1.00	54.51
8540	CA	GLY B 309	-9.302	-16.561	115.692	1.00	53.83
8541	C	GLY B 309	-10.396	-15.596	115.279	1.00	52.94
8542	O	GLY B 309	-11.165	-15.839	114.348	1.00	53.23
8543	N	ARG B 310	-10.440	-14.481	116.001	1.00	51.75
8544	CA	ARG B 310	-11.400	-13.416	115.773	1.00	50.58
8545	CB	ARG B 310	-11.784	-12.752	117.092	1.00	50.88
8546	CG	ARG B 310	-12.907	-13.443	117.792	1.00	54.09
8547	CD	ARG B 310	-12.707	-13.618	119.270	1.00	59.77
8548	NE	ARG B 310	-13.888	-14.230	119.871	1.00	64.94
8549	CZ	ARG B 310	-14.863	-13.542	120.464	1.00	67.93
8550	NH1	ARG B 310	-14.792	-12.215	120.536	1.00	68.66
8551	NH2	ARG B 310	-15.910	-14.178	120.985	1.00	68.59
8552	C	ARG B 310	-10.793	-12.367	114.899	1.00	48.86
8553	O	ARG B 310	-9.614	-12.413	114.581	1.00	48.77
8554	N	TRP B 311	-11.623	-11.401	114.541	1.00	47.08
8555	CA	TRP B 311	-11.215	-10.279	113.733	1.00	45.09
8556	CB	TRP B 311	-12.079	-10.231	112.477	1.00	44.10
8557	CG	TRP B 311	-11.753	-11.328	111.540	1.00	40.23
8558	CD1	TRP B 311	-12.191	-12.618	111.588	1.00	37.52

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**FIGURE 3 FL**

A	B	C	D	E	F	G	H	I	J
8559	NE1	TRP	B	311	-11.646	-13.342	110.554	1.00	35.32
8560	CE2	TRP	B	311	-10.842	-12.511	109.815	1.00	34.42
8561	CD2	TRP	B	311	-10.883	-11.242	110.415	1.00	36.23
8562	CE3	TRP	B	311	-10.135	-10.212	109.847	1.00	35.26
8563	CZ3	TRP	B	311	-9.388	-10.477	108.730	1.00	35.47
8564	CH2	TRP	B	311	-9.371	-11.744	108.158	1.00	34.18
8565	CZ2	TRP	B	311	-10.092	-12.771	108.684	1.00	34.45
8566	C	TRP	B	311	-11.373	-9.005	114.551	1.00	44.85
8567	O	TRP	B	311	-12.338	-8.859	115.290	1.00	44.57
8568	N	ASN	B	312	-10.435	-8.083	114.409	1.00	44.33
8569	CA	ASN	B	312	-10.464	-6.862	115.187	1.00	44.71
8570	CB	ASN	B	312	-9.411	-6.911	116.303	1.00	44.96
8571	CG	ASN	B	312	-9.768	-7.883	117.398	1.00	44.98
8572	OD1	ASN	B	312	-10.562	-7.564	118.281	1.00	46.84
8573	ND2	ASN	B	312	-9.172	-9.072	117.361	1.00	43.43
8574	C	ASN	B	312	-10.179	-5.663	114.322	1.00	44.80
8575	O	ASN	B	312	-9.282	-5.690	113.496	1.00	44.20
8576	N	CYS	B	313	-10.933	-4.600	114.557	1.00	45.52
8577	CA	CYS	B	313	-10.814	-3.376	113.800	1.00	46.35
8578	CB	CYS	B	313	-12.188	-3.018	113.208	1.00	46.62
8579	SG	CYS	B	313	-13.193	-4.443	112.629	1.00	46.14
8580	C	CYS	B	313	-10.324	-2.266	114.724	1.00	47.10
8581	O	CYS	B	313	-11.070	-1.801	115.576	1.00	47.66
8582	N	LEU	B	314	-9.078	-1.834	114.564	1.00	47.75
8583	CA	LEU	B	314	-8.548	-0.787	115.433	1.00	48.41
8584	CB	LEU	B	314	-7.026	-0.667	115.314	1.00	48.43
8585	CG	LEU	B	314	-6.124	-1.561	116.168	1.00	48.67
8586	CD1	LEU	B	314	-5.616	-2.768	115.399	1.00	50.57
8587	CD2	LEU	B	314	-6.808	-1.971	117.463	1.00	49.11
8588	C	LEU	B	314	-9.187	0.558	115.132	1.00	48.75
8589	O	LEU	B	314	-9.092	1.062	114.018	1.00	48.76
8590	N	VAL	B	315	-9.801	1.149	116.151	1.00	49.18
8591	CA	VAL	B	315	-10.499	2.421	116.018	1.00	49.37
8592	CB	VAL	B	315	-11.083	2.893	117.372	1.00	49.62
8593	CG1	VAL	B	315	-11.938	4.144	117.179	1.00	50.08
8594	CG2	VAL	B	315	-11.919	1.786	117.997	1.00	49.65
8595	C	VAL	B	315	-9.654	3.525	115.398	1.00	49.37
8596	O	VAL	B	315	-10.187	4.429	114.752	1.00	49.79
8597	N	ALA	B	316	-8.341	3.444	115.583	1.00	49.29
8598	CA	ALA	B	316	-7.413	4.427	115.030	1.00	48.81
8599	CB	ALA	B	316	-6.150	4.498	115.880	1.00	49.17
8600	C	ALA	B	316	-7.066	4.074	113.591	1.00	48.87
8601	O	ALA	B	316	-6.333	4.802	112.908	1.00	48.88
8602	N	ARG	B	317	-7.574	2.935	113.131	1.00	48.37
8603	CA	ARG	B	317	-7.394	2.577	111.738	1.00	47.78
8604	CB	ARG	B	317	-6.927	1.122	111.575	1.00	47.56
8605	CG	ARG	B	317	-5.690	0.780	112.408	1.00	47.78
8606	CD	ARG	B	317	-4.586	-0.009	111.677	1.00	47.51
8607	NE	ARG	B	317	-4.763	-1.451	111.784	1.00	47.32
8608	CZ	ARG	B	317	-3.766	-2.328	111.773	1.00	48.74
8609	NH1	ARG	B	317	-4.025	-3.627	111.879	1.00	47.96

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FIGURE 3 FM

A	B	C	D	E	F	G	H	I	J
8610	NH2	ARG	B	317	-2.506	-1.911	111.658	1.00	48.95
8611	C	ARG	B	317	-8.705	2.868	110.996	1.00	47.39
8612	O	ARG	B	317	-8.864	2.486	109.840	1.00	47.78
8613	N	GLN	B	318	-9.634	3.547	111.672	1.00	46.34
8614	CA	GLN	B	318	-10.901	3.950	111.065	1.00	45.47
8615	CB	GLN	B	318	-11.967	4.243	112.118	1.00	45.18
8616	CG	GLN	B	318	-12.715	3.030	112.621	1.00	44.04
8617	CD	GLN	B	318	-13.832	3.384	113.596	1.00	43.62
8618	OE1	GLN	B	318	-14.374	2.495	114.270	1.00	43.11
8619	NE2	GLN	B	318	-14.172	4.679	113.685	1.00	41.17
8620	C	GLN	B	318	-10.729	5.197	110.232	1.00	45.42
8621	O	GLN	B	318	-10.027	6.119	110.625	1.00	45.28
8622	N	HIS	B	319	-11.380	5.234	109.075	1.00	45.21
8623	CA	HIS	B	319	-11.326	6.430	108.251	1.00	44.70
8624	CB	HIS	B	319	-10.573	6.159	106.953	1.00	44.42
8625	CG	HIS	B	319	-9.144	5.768	107.164	1.00	44.37
8626	ND1	HIS	B	319	-8.777	4.603	107.805	1.00	43.47
8627	CE1	HIS	B	319	-7.460	4.525	107.853	1.00	44.31
8628	NE2	HIS	B	319	-6.958	5.602	107.271	1.00	44.70
8629	CD2	HIS	B	319	-7.990	6.400	106.840	1.00	43.53
8630	C	HIS	B	319	-12.745	6.937	108.001	1.00	44.84
8631	O	HIS	B	319	-13.652	6.170	107.666	1.00	44.74
8632	N	ILE	B	320	-12.939	8.232	108.195	1.00	44.88
8633	CA	ILE	B	320	-14.245	8.819	108.005	1.00	44.83
8634	CB	ILE	B	320	-14.574	9.781	109.152	1.00	45.25
8635	CG1	ILE	B	320	-14.665	9.023	110.477	1.00	45.63
8636	CD1	ILE	B	320	-14.781	9.948	111.666	1.00	48.51
8637	CG2	ILE	B	320	-15.872	10.531	108.868	1.00	44.08
8638	C	ILE	B	320	-14.273	9.566	106.699	1.00	44.62
8639	O	ILE	B	320	-13.342	10.288	106.375	1.00	44.36
8640	N	GLU	B	321	-15.338	9.357	105.936	1.00	44.42
8641	CA	GLU	B	321	-15.548	10.101	104.704	1.00	44.18
8642	CB	GLU	B	321	-15.402	9.201	103.472	1.00	44.12
8643	CG	GLU	B	321	-15.275	9.966	102.163	1.00	43.27
8644	CD	GLU	B	321	-15.257	9.052	100.951	1.00	43.57
8645	OE1	GLU	B	321	-14.829	7.884	101.090	1.00	43.88
8646	OE2	GLU	B	321	-15.670	9.502	99.857	1.00	43.47
8647	C	GLU	B	321	-16.945	10.714	104.786	1.00	44.02
8648	O	GLU	B	321	-17.956	10.000	104.813	1.00	44.24
8649	N	MET	B	322	-16.971	12.043	104.825	1.00	43.51
8650	CA	MET	B	322	-18.170	12.840	105.001	1.00	42.63
8651	CB	MET	B	322	-17.965	13.755	106.206	1.00	43.28
8652	CG	MET	B	322	-18.418	13.265	107.548	1.00	45.74
8653	SD	MET	B	322	-17.791	14.488	108.767	1.00	52.31
8654	CE	MET	B	322	-17.696	15.985	107.722	1.00	51.74
8655	C	MET	B	322	-18.349	13.779	103.829	1.00	41.53
8656	O	MET	B	322	-17.427	14.007	103.064	1.00	41.26
8657	N	SER	B	323	-19.533	14.368	103.729	1.00	40.61
8658	CA	SER	B	323	-19.809	15.388	102.728	1.00	40.06
8659	CB	SER	B	323	-20.495	14.804	101.495	1.00	39.82
8660	OG	SER	B	323	-20.860	15.850	100.604	1.00	39.09

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**FIGURE 3 FN**

A	B	C	D	E	F	G	H	I	J
8661	C	SER	B	323	-20.730	16.421	103.350	1.00	39.95
8662	O	SER	B	323	-21.649	16.074	104.081	1.00	39.28
8663	N	THR	B	324	-20.493	17.690	103.068	1.00	40.39
8664	CA	THR	B	324	-21.361	18.719	103.634	1.00	40.95
8665	CB	THR	B	324	-20.553	19.794	104.399	1.00	41.44
8666	OG1	THR	B	324	-19.536	20.339	103.544	1.00	43.72
8667	CG2	THR	B	324	-19.757	19.151	105.520	1.00	41.41
8668	C	THR	B	324	-22.203	19.344	102.548	1.00	40.11
8669	O	THR	B	324	-23.164	20.032	102.842	1.00	40.55
8670	N	THR	B	325	-21.835	19.094	101.293	1.00	39.33
8671	CA	THR	B	325	-22.586	19.587	100.141	1.00	38.58
8672	CB	THR	B	325	-21.634	19.908	98.977	1.00	38.55
8673	OG1	THR	B	325	-20.674	18.849	98.844	1.00	38.96
8674	CG2	THR	B	325	-20.770	21.122	99.305	1.00	40.01
8675	C	THR	B	325	-23.631	18.578	99.638	1.00	37.87
8676	O	THR	B	325	-24.496	18.934	98.859	1.00	38.08
8677	N	GLY	B	326	-23.534	17.321	100.063	1.00	37.04
8678	CA	GLY	B	326	-24.430	16.294	99.578	1.00	35.41
8679	C	GLY	B	326	-24.145	14.931	100.169	1.00	34.41
8680	O	GLY	B	326	-23.908	14.818	101.362	1.00	34.80
8681	N	TRP	B	327	-24.190	13.890	99.339	1.00	33.13
8682	CA	TRP	B	327	-23.973	12.527	99.803	1.00	31.83
8683	CB	TRP	B	327	-24.906	11.567	99.049	1.00	31.57
8684	CG	TRP	B	327	-24.661	11.606	97.556	1.00	29.42
8685	CD1	TRP	B	327	-23.879	10.756	96.840	1.00	27.20
8686	NE1	TRP	B	327	-23.846	11.133	95.523	1.00	26.93
8687	CE2	TRP	B	327	-24.626	12.246	95.361	1.00	27.08
8688	CD2	TRP	B	327	-25.146	12.579	96.627	1.00	27.38
8689	CE3	TRP	B	327	-25.991	13.693	96.729	1.00	27.46
8690	CZ3	TRP	B	327	-26.273	14.432	95.588	1.00	23.17
8691	CH2	TRP	B	327	-25.728	14.078	94.347	1.00	26.08
8692	CZ2	TRP	B	327	-24.915	12.985	94.209	1.00	26.03
8693	C	TRP	B	327	-22.505	12.175	99.551	1.00	31.86
8694	O	TRP	B	327	-21.758	12.966	98.982	1.00	31.37
8695	N	VAL	B	328	-22.076	10.995	99.975	1.00	32.34
8696	CA	VAL	B	328	-20.684	10.613	99.737	1.00	32.69
8697	CB	VAL	B	328	-20.008	10.076	101.002	1.00	32.65
8698	CG1	VAL	B	328	-20.961	9.213	101.787	1.00	34.01
8699	CG2	VAL	B	328	-18.748	9.308	100.656	1.00	32.32
8700	C	VAL	B	328	-20.556	9.605	98.596	1.00	32.55
8701	O	VAL	B	328	-21.282	8.627	98.536	1.00	32.19
8702	N	GLY	B	329	-19.602	9.859	97.714	1.00	32.82
8703	CA	GLY	B	329	-19.337	9.004	96.583	1.00	33.09
8704	C	GLY	B	329	-20.211	9.452	95.439	1.00	33.00
8705	O	GLY	B	329	-21.127	10.267	95.620	1.00	33.18
8706	N	ARG	B	330	-19.919	8.952	94.252	1.00	32.66
8707	CA	ARG	B	330	-20.744	9.287	93.113	1.00	32.38
8708	CB	ARG	B	330	-20.031	8.938	91.811	1.00	32.77
8709	CG	ARG	B	330	-18.974	9.987	91.488	1.00	34.36
8710	CD	ARG	B	330	-18.411	9.943	90.087	1.00	34.91
8711	NE	ARG	B	330	-17.190	9.165	90.101	1.00	37.09



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**FIGURE 3 FO**

A	B	C	D	E	F	G	H	I	J
8712	CZ	ARG	B	330	-16.013	9.583	89.674	1.00	36.34
8713	NH1	ARG	B	330	-15.001	8.751	89.760	1.00	39.45
8714	NH2	ARG	B	330	-15.844	10.792	89.147	1.00	34.94
8715	C	ARG	B	330	-22.103	8.612	93.302	1.00	31.87
8716	O	ARG	B	330	-23.128	9.229	93.100	1.00	32.19
8717	N	PHE	B	331	-22.105	7.364	93.746	1.00	31.31
8718	CA	PHE	B	331	-23.333	6.687	94.119	1.00	31.39
8719	CB	PHE	B	331	-23.792	5.693	93.043	1.00	30.66
8720	CG	PHE	B	331	-24.187	6.347	91.758	1.00	28.41
8721	CD1	PHE	B	331	-25.503	6.715	91.530	1.00	26.38
8722	CE1	PHE	B	331	-25.873	7.333	90.339	1.00	27.31
8723	CZ	PHE	B	331	-24.910	7.608	89.371	1.00	25.31
8724	CE2	PHE	B	331	-23.600	7.260	89.598	1.00	27.02
8725	CD2	PHE	B	331	-23.238	6.631	90.790	1.00	26.92
8726	C	PHE	B	331	-23.120	5.997	95.461	1.00	32.56
8727	O	PHE	B	331	-24.067	5.720	96.193	1.00	33.56
8728	N	ARG	B	332	-21.865	5.712	95.782	1.00	33.38
8729	CA	ARG	B	332	-21.520	5.072	97.044	1.00	33.89
8730	CB	ARG	B	332	-21.739	3.555	96.970	1.00	34.01
8731	CG	ARG	B	332	-20.838	2.816	95.989	1.00	34.01
8732	CD	ARG	B	332	-21.325	1.427	95.626	1.00	36.66
8733	NE	ARG	B	332	-22.754	1.443	95.271	1.00	39.82
8734	CZ	ARG	B	332	-23.231	1.668	94.046	1.00	39.18
8735	NH1	ARG	B	332	-22.403	1.884	93.028	1.00	37.21
8736	NH2	ARG	B	332	-24.542	1.682	93.841	1.00	39.54
8737	C	ARG	B	332	-20.067	5.368	97.324	1.00	34.48
8738	O	ARG	B	332	-19.296	5.630	96.401	1.00	34.41
8739	N	PRO	B	333	-19.684	5.348	98.595	1.00	35.25
8740	CA	PRO	B	333	-18.285	5.587	98.952	1.00	35.46
8741	CB	PRO	B	333	-18.184	5.045	100.382	1.00	35.54
8742	CG	PRO	B	333	-19.574	5.147	100.936	1.00	36.38
8743	CD	PRO	B	333	-20.542	5.116	99.772	1.00	35.16
8744	C	PRO	B	333	-17.409	4.763	98.033	1.00	35.43
8745	O	PRO	B	333	-17.645	3.585	97.878	1.00	36.30
8746	N	SER	B	334	-16.399	5.360	97.435	1.00	35.72
8747	CA	SER	B	334	-15.526	4.607	96.552	1.00	36.00
8748	CB	SER	B	334	-14.561	5.533	95.844	1.00	36.20
8749	OG	SER	B	334	-14.557	5.196	94.469	1.00	38.91
8750	C	SER	B	334	-14.749	3.472	97.217	1.00	35.87
8751	O	SER	B	334	-14.614	3.403	98.458	1.00	35.58
8752	N	GLU	B	335	-14.227	2.587	96.373	1.00	35.21
8753	CA	GLU	B	335	-13.488	1.443	96.862	1.00	34.87
8754	CB	GLU	B	335	-13.756	0.208	96.003	1.00	35.20
8755	CG	GLU	B	335	-12.934	0.113	94.729	1.00	36.16
8756	CD	GLU	B	335	-13.390	1.083	93.659	1.00	39.30
8757	OE1	GLU	B	335	-14.592	1.443	93.662	1.00	41.87
8758	OE2	GLU	B	335	-12.550	1.484	92.810	1.00	39.58
8759	C	GLU	B	335	-11.989	1.760	96.926	1.00	34.43
8760	O	GLU	B	335	-11.448	2.475	96.078	1.00	33.63
8761	N	PRO	B	336	-11.334	1.232	97.951	1.00	34.00
8762	CA	PRO	B	336	-9.905	1.450	98.140	1.00	34.58

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**FIGURE 3 FP**

A	B	C D E	F	G	H	I	J
8763	CB	PRO B 336	-9.767	1.320	99.651	1.00	34.64
8764	CG	PRO B 336	-10.730	0.199	99.975	1.00	34.28
8765	CD	PRO B 336	-11.901	0.390	99.021	1.00	33.04
8766	C	PRO B 336	-9.079	0.364	97.449	1.00	35.06
8767	O	PRO B 336	-9.509	-0.787	97.352	1.00	34.53
8768	N	HIS B 337	-7.907	0.758	96.970	1.00	35.64
8769	CA	HIS B 337	-6.964	-0.148	96.345	1.00	36.77
8770	CB	HIS B 337	-6.699	0.280	94.915	1.00	36.73
8771	CG	HIS B 337	-7.931	0.289	94.073	1.00	39.21
8772	ND1	HIS B 337	-8.265	-0.754	93.238	1.00	41.51
8773	CE1	HIS B 337	-9.405	-0.477	92.629	1.00	41.54
8774	NE2	HIS B 337	-9.830	0.699	93.054	1.00	41.98
8775	CD2	HIS B 337	-8.926	1.201	93.957	1.00	40.47
8776	C	HIS B 337	-5.678	-0.177	97.169	1.00	36.72
8777	O	HIS B 337	-4.917	0.780	97.208	1.00	36.00
8778	N	PHE B 338	-5.460	-1.301	97.822	1.00	37.60
8779	CA	PHE B 338	-4.348	-1.477	98.735	1.00	38.65
8780	CB	PHE B 338	-4.719	-2.573	99.715	1.00	38.15
8781	CG	PHE B 338	-5.756	-2.160	100.697	1.00	38.45
8782	CD1	PHE B 338	-7.101	-2.326	100.416	1.00	38.31
8783	CE1	PHE B 338	-8.057	-1.942	101.328	1.00	36.65
8784	CZ	PHE B 338	-7.685	-1.381	102.517	1.00	36.84
8785	CE2	PHE B 338	-6.346	-1.206	102.812	1.00	37.23
8786	CD2	PHE B 338	-5.394	-1.598	101.908	1.00	38.29
8787	C	PHE B 338	-3.016	-1.826	98.088	1.00	39.48
8788	O	PHE B 338	-2.961	-2.497	97.063	1.00	40.08
8789	N	THR B 339	-1.936	-1.363	98.704	1.00	40.67
8790	CA	THR B 339	-0.603	-1.718	98.258	1.00	41.39
8791	CB	THR B 339	0.438	-0.866	98.951	1.00	41.43
8792	OG1	THR B 339	0.165	-0.881	100.357	1.00	41.21
8793	CG2	THR B 339	0.302	0.588	98.559	1.00	40.00
8794	C	THR B 339	-0.422	-3.128	98.744	1.00	42.42
8795	O	THR B 339	-1.115	-3.563	99.659	1.00	42.69
8796	N	LEU B 340	0.531	-3.831	98.156	1.00	43.57
8797	CA	LEU B 340	0.808	-5.214	98.528	1.00	44.63
8798	CB	LEU B 340	2.094	-5.680	97.841	1.00	44.77
8799	CG	LEU B 340	2.175	-7.175	97.554	1.00	45.78
8800	CD1	LEU B 340	0.971	-7.604	96.719	1.00	45.59
8801	CD2	LEU B 340	2.274	-7.983	98.841	1.00	46.02
8802	C	LEU B 340	0.906	-5.461	100.041	1.00	44.89
8803	O	LEU B 340	0.349	-6.434	100.547	1.00	44.86
8804	N	ASP B 341	1.625	-4.612	100.769	1.00	45.45
8805	CA	ASP B 341	1.764	-4.846	102.213	1.00	46.18
8806	CB	ASP B 341	2.986	-4.126	102.789	1.00	46.25
8807	CG	ASP B 341	2.823	-2.616	102.818	1.00	47.91
8808	OD1	ASP B 341	3.832	-1.924	103.116	1.00	47.25
8809	OD2	ASP B 341	1.738	-2.033	102.562	1.00	48.84
8810	C	ASP B 341	0.495	-4.530	103.026	1.00	46.03
8811	O	ASP B 341	0.415	-4.827	104.221	1.00	46.41
8812	N	GLY B 342	-0.488	-3.919	102.379	1.00	45.84
8813	CA	GLY B 342	-1.758	-3.626	103.021	1.00	45.65

**REPLACEMENT SHEET**  
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**FIGURE 3 FQ**

A	B	C	D	E	F	G	H	I	J
8814	C	GLY	B	342	-1.731	-2.603	104.143	1.00	45.30
8815	O	GLY	B	342	-2.662	-2.529	104.947	1.00	45.37
8816	N	ASN	B	343	-0.676	-1.807	104.219	1.00	44.73
8817	CA	ASN	B	343	-0.629	-0.800	105.271	1.00	44.46
8818	CB	ASN	B	343	0.774	-0.661	105.862	1.00	44.15
8819	CG	ASN	B	343	1.336	-1.968	106.356	1.00	44.36
8820	OD1	ASN	B	343	0.704	-2.684	107.138	1.00	44.47
8821	ND2	ASN	B	343	2.548	-2.285	105.911	1.00	44.77
8822	C	ASN	B	343	-1.054	0.523	104.675	1.00	44.12
8823	O	ASN	B	343	-1.257	1.507	105.381	1.00	43.99
8824	N	SER	B	344	-1.184	0.534	103.358	1.00	43.76
8825	CA	SER	B	344	-1.531	1.752	102.652	1.00	43.78
8826	CB	SER	B	344	-0.274	2.306	102.002	1.00	43.62
8827	OG	SER	B	344	-0.444	3.664	101.675	1.00	45.00
8828	C	SER	B	344	-2.609	1.496	101.588	1.00	43.53
8829	O	SER	B	344	-2.904	0.334	101.262	1.00	43.57
8830	N	PHE	B	345	-3.204	2.564	101.051	1.00	43.02
8831	CA	PHE	B	345	-4.193	2.404	99.982	1.00	42.73
8832	CB	PHE	B	345	-5.463	1.708	100.477	1.00	42.42
8833	CG	PHE	B	345	-6.288	2.536	101.424	1.00	42.37
8834	CD1	PHE	B	345	-7.127	3.534	100.950	1.00	40.54
8835	CE1	PHE	B	345	-7.890	4.283	101.808	1.00	39.15
8836	CZ	PHE	B	345	-7.834	4.047	103.150	1.00	39.99
8837	CE2	PHE	B	345	-7.009	3.041	103.647	1.00	40.96
8838	CD2	PHE	B	345	-6.247	2.294	102.787	1.00	41.13
8839	C	PHE	B	345	-4.560	3.670	99.229	1.00	42.73
8840	O	PHE	B	345	-4.367	4.784	99.718	1.00	42.82
8841	N	TYR	B	346	-5.094	3.475	98.028	1.00	42.41
8842	CA	TYR	B	346	-5.538	4.575	97.186	1.00	42.60
8843	CB	TYR	B	346	-4.828	4.545	95.832	1.00	42.55
8844	CG	TYR	B	346	-3.336	4.654	95.945	1.00	42.22
8845	CD1	TYR	B	346	-2.692	5.861	95.724	1.00	41.32
8846	CE1	TYR	B	346	-1.325	5.965	95.832	1.00	42.58
8847	CZ	TYR	B	346	-0.579	4.854	96.173	1.00	42.02
8848	OH	TYR	B	346	0.789	4.953	96.290	1.00	42.68
8849	CE2	TYR	B	346	-1.196	3.651	96.411	1.00	42.43
8850	CD2	TYR	B	346	-2.570	3.557	96.293	1.00	43.21
8851	C	TYR	B	346	-7.030	4.478	96.968	1.00	42.36
8852	O	TYR	B	346	-7.555	3.384	96.723	1.00	42.86
8853	N	LYS	B	347	-7.716	5.610	97.088	1.00	42.04
8854	CA	LYS	B	347	-9.150	5.665	96.822	1.00	41.82
8855	CB	LYS	B	347	-9.987	5.164	98.006	1.00	42.17
8856	CG	LYS	B	347	-10.372	6.206	99.028	1.00	43.16
8857	CD	LYS	B	347	-11.873	6.369	99.137	1.00	43.24
8858	CE	LYS	B	347	-12.459	5.513	100.242	1.00	41.92
8859	NZ	LYS	B	347	-13.922	5.833	100.429	1.00	41.44
8860	C	LYS	B	347	-9.550	7.062	96.421	1.00	41.46
8861	O	LYS	B	347	-9.000	8.045	96.922	1.00	41.71
8862	N	ILE	B	348	-10.490	7.130	95.482	1.00	40.49
8863	CA	ILE	B	348	-11.010	8.373	94.970	1.00	39.65
8864	CB	ILE	B	348	-11.719	8.109	93.658	1.00	39.99

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**FIGURE 3 FR**

A	B	C	D	E	F	G	H	I	J
8865	CG1	ILE	B	348	-10.751	7.503	92.647	1.00	40.33
8866	CD1	ILE	B	348	-11.423	7.141	91.328	1.00	42.02
8867	CG2	ILE	B	348	-12.336	9.373	93.106	1.00	40.21
8868	C	ILE	B	348	-11.974	8.990	95.977	1.00	39.56
8869	O	ILE	B	348	-12.813	8.294	96.551	1.00	39.35
8870	N	ILE	B	349	-11.795	10.286	96.219	1.00	39.00
8871	CA	ILE	B	349	-12.626	11.081	97.108	1.00	39.16
8872	CB	ILE	B	349	-12.082	11.126	98.552	1.00	39.04
8873	CG1	ILE	B	349	-10.612	11.520	98.585	1.00	39.64
8874	CD1	ILE	B	349	-10.139	11.936	99.982	1.00	39.54
8875	CG2	ILE	B	349	-12.281	9.819	99.263	1.00	39.93
8876	C	ILE	B	349	-12.639	12.488	96.547	1.00	39.03
8877	O	ILE	B	349	-11.775	12.846	95.746	1.00	39.19
8878	N	SER	B	350	-13.617	13.293	96.938	1.00	39.08
8879	CA	SER	B	350	-13.647	14.653	96.434	1.00	39.74
8880	CB	SER	B	350	-15.039	15.257	96.516	1.00	39.37
8881	OG	SER	B	350	-15.721	14.721	97.617	1.00	40.57
8882	C	SER	B	350	-12.652	15.487	97.206	1.00	40.13
8883	O	SER	B	350	-12.518	15.327	98.421	1.00	39.82
8884	N	ASN	B	351	-11.956	16.363	96.487	1.00	40.90
8885	CA	ASN	B	351	-10.946	17.212	97.094	1.00	42.48
8886	CB	ASN	B	351	-9.810	17.506	96.111	1.00	41.86
8887	CG	ASN	B	351	-10.220	18.438	95.019	1.00	40.95
8888	OD1	ASN	B	351	-11.304	19.019	95.058	1.00	40.08
8889	ND2	ASN	B	351	-9.352	18.598	94.024	1.00	40.40
8890	C	ASN	B	351	-11.525	18.503	97.656	1.00	43.74
8891	O	ASN	B	351	-12.732	18.743	97.573	1.00	44.49
8892	N	GLU	B	352	-10.650	19.325	98.227	1.00	45.07
8893	CA	GLU	B	352	-11.040	20.589	98.853	1.00	46.08
8894	CB	GLU	B	352	-9.803	21.451	99.160	1.00	46.33
8895	CG	GLU	B	352	-8.980	21.843	97.933	1.00	48.13
8896	CD	GLU	B	352	-8.169	20.681	97.364	1.00	50.83
8897	OE1	GLU	B	352	-7.816	20.729	96.157	1.00	50.33
8898	OE2	GLU	B	352	-7.884	19.713	98.125	1.00	51.22
8899	C	GLU	B	352	-12.017	21.378	97.999	1.00	46.10
8900	O	GLU	B	352	-12.918	22.038	98.517	1.00	46.29
8901	N	GLU	B	353	-11.847	21.307	96.686	1.00	46.18
8902	CA	GLU	B	353	-12.728	22.052	95.808	1.00	46.03
8903	CB	GLU	B	353	-11.936	22.862	94.784	1.00	46.58
8904	CG	GLU	B	353	-10.661	22.220	94.278	1.00	49.12
8905	CD	GLU	B	353	-10.141	22.953	93.063	1.00	53.08
8906	OE1	GLU	B	353	-10.498	24.144	92.921	1.00	54.96
8907	OE2	GLU	B	353	-9.408	22.346	92.241	1.00	55.30
8908	C	GLU	B	353	-13.824	21.223	95.132	1.00	45.23
8909	O	GLU	B	353	-14.458	21.690	94.186	1.00	45.19
8910	N	GLY	B	354	-14.048	20.004	95.609	1.00	44.03
8911	CA	GLY	B	354	-15.155	19.210	95.103	1.00	42.61
8912	C	GLY	B	354	-14.896	18.382	93.857	1.00	41.84
8913	O	GLY	B	354	-15.818	17.772	93.292	1.00	41.34
8914	N	TYR	B	355	-13.647	18.366	93.407	1.00	40.95
8915	CA	TYR	B	355	-13.290	17.519	92.280	1.00	39.61

**REPLACEMENT SHEET**  
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**FIGURE 3 FS**

A	B	C	D	E	F	G	H	I	J
8916	CB	TYR	B	355	-12.291	18.191	91.363	1.00	39.28
8917	CG	TYR	B	355	-12.919	19.335	90.611	1.00	38.85
8918	CD1	TYR	B	355	-12.950	20.610	91.156	1.00	38.45
8919	CE1	TYR	B	355	-13.539	21.664	90.483	1.00	37.46
8920	CZ	TYR	B	355	-14.109	21.448	89.248	1.00	37.71
8921	OH	TYR	B	355	-14.690	22.508	88.578	1.00	35.87
8922	CE2	TYR	B	355	-14.103	20.178	88.689	1.00	37.54
8923	CD2	TYR	B	355	-13.517	19.135	89.375	1.00	38.66
8924	C	TYR	B	355	-12.795	16.207	92.830	1.00	38.85
8925	O	TYR	B	355	-12.126	16.172	93.859	1.00	38.81
8926	N	ARG	B	356	-13.195	15.119	92.183	1.00	37.98
8927	CA	ARG	B	356	-12.839	13.791	92.672	1.00	36.90
8928	CB	ARG	B	356	-13.934	12.771	92.344	1.00	36.89
8929	CG	ARG	B	356	-15.072	12.844	93.340	1.00	36.55
8930	CD	ARG	B	356	-16.371	12.194	92.916	1.00	35.78
8931	NE	ARG	B	356	-17.475	12.940	93.499	1.00	37.53
8932	CZ	ARG	B	356	-17.933	12.767	94.735	1.00	37.72
8933	NH1	ARG	B	356	-17.421	11.829	95.514	1.00	36.53
8934	NH2	ARG	B	356	-18.924	13.530	95.186	1.00	38.36
8935	C	ARG	B	356	-11.477	13.346	92.182	1.00	35.86
8936	O	ARG	B	356	-11.201	13.308	90.989	1.00	35.34
8937	N	HIS	B	357	-10.622	13.013	93.129	1.00	35.61
8938	CA	HIS	B	357	-9.268	12.639	92.797	1.00	35.35
8939	CB	HIS	B	357	-8.361	13.854	92.922	1.00	34.69
8940	CG	HIS	B	357	-8.491	14.797	91.777	1.00	31.97
8941	ND1	HIS	B	357	-7.876	14.577	90.569	1.00	29.99
8942	CE1	HIS	B	357	-8.186	15.552	89.734	1.00	30.81
8943	NE2	HIS	B	357	-8.992	16.392	90.357	1.00	30.84
8944	CD2	HIS	B	357	-9.207	15.936	91.635	1.00	31.68
8945	C	HIS	B	357	-8.772	11.511	93.666	1.00	36.43
8946	O	HIS	B	357	-9.428	11.110	94.634	1.00	35.70
8947	N	ILE	B	358	-7.602	11.000	93.307	1.00	37.92
8948	CA	ILE	B	358	-7.014	9.897	94.041	1.00	39.58
8949	CB	ILE	B	358	-6.043	9.143	93.142	1.00	39.62
8950	CG1	ILE	B	358	-6.726	8.773	91.823	1.00	39.16
8951	CD1	ILE	B	358	-5.780	8.118	90.858	1.00	40.18
8952	CG2	ILE	B	358	-5.518	7.925	93.865	1.00	38.65
8953	C	ILE	B	358	-6.285	10.376	95.284	1.00	40.60
8954	O	ILE	B	358	-5.345	11.143	95.200	1.00	40.23
8955	N	CYS	B	359	-6.728	9.911	96.440	1.00	42.66
8956	CA	CYS	B	359	-6.073	10.277	97.677	1.00	44.79
8957	CB	CYS	B	359	-7.078	10.791	98.712	1.00	44.98
8958	SG	CYS	B	359	-6.425	12.181	99.684	1.00	50.06
8959	C	CYS	B	359	-5.301	9.070	98.201	1.00	45.23
8960	O	CYS	B	359	-5.806	7.945	98.200	1.00	44.97
8961	N	TYR	B	360	-4.068	9.313	98.633	1.00	45.97
8962	CA	TYR	B	360	-3.203	8.253	99.133	1.00	46.80
8963	CB	TYR	B	360	-1.767	8.506	98.666	1.00	47.14
8964	CG	TYR	B	360	-0.755	7.530	99.201	1.00	48.65
8965	CD1	TYR	B	360	0.432	7.978	99.778	1.00	50.02
8966	CE1	TYR	B	360	1.363	7.089	100.275	1.00	50.74

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**FIGURE 3 FT**

A	B	C	D	E	F	G	H	I	J
8967	CZ	TYR	B	360	1.109	5.737	100.199	1.00	50.96
8968	OH	TYR	B	360	2.029	4.836	100.683	1.00	52.69
8969	CE2	TYR	B	360	-0.059	5.273	99.629	1.00	50.11
8970	CD2	TYR	B	360	-0.981	6.166	99.138	1.00	48.61
8971	C	TYR	B	360	-3.308	8.163	100.652	1.00	47.03
8972	O	TYR	B	360	-3.100	9.141	101.356	1.00	47.17
8973	N	PHE	B	361	-3.662	6.990	101.157	1.00	47.69
8974	CA	PHE	B	361	-3.859	6.826	102.586	1.00	48.63
8975	CB	PHE	B	361	-5.237	6.219	102.892	1.00	48.62
8976	CG	PHE	B	361	-6.400	7.123	102.573	1.00	49.54
8977	CD1	PHE	B	361	-7.191	7.635	103.592	1.00	49.80
8978	CE1	PHE	B	361	-8.276	8.459	103.306	1.00	50.81
8979	CZ	PHE	B	361	-8.580	8.775	101.993	1.00	50.87
8980	CE2	PHE	B	361	-7.799	8.264	100.965	1.00	50.72
8981	CD2	PHE	B	361	-6.719	7.439	101.259	1.00	49.46
8982	C	PHE	B	361	-2.836	5.907	103.210	1.00	49.27
8983	O	PHE	B	361	-2.396	4.934	102.607	1.00	48.69
8984	N	GLN	B	362	-2.490	6.222	104.448	1.00	50.41
8985	CA	GLN	B	362	-1.643	5.375	105.249	1.00	51.46
8986	CB	GLN	B	362	-0.577	6.206	105.952	1.00	51.57
8987	CG	GLN	B	362	0.828	5.671	105.793	1.00	54.18
8988	CD	GLN	B	362	1.518	6.183	104.530	1.00	56.47
8989	OE1	GLN	B	362	2.745	6.357	104.512	1.00	57.84
8990	NE2	GLN	B	362	0.740	6.420	103.478	1.00	54.93
8991	C	GLN	B	362	-2.634	4.828	106.247	1.00	51.84
8992	O	GLN	B	362	-3.385	5.587	106.855	1.00	51.72
8993	N	ILE	B	363	-2.656	3.515	106.408	1.00	52.75
8994	CA	ILE	B	363	-3.628	2.874	107.281	1.00	53.94
8995	CB	ILE	B	363	-3.340	1.358	107.355	1.00	53.90
8996	CG1	ILE	B	363	-4.581	0.564	106.966	1.00	54.08
8997	CD1	ILE	B	363	-4.854	0.624	105.495	1.00	53.92
8998	CG2	ILE	B	363	-2.799	0.943	108.702	1.00	53.69
8999	C	ILE	B	363	-3.723	3.488	108.684	1.00	55.21
9000	O	ILE	B	363	-4.779	3.426	109.317	1.00	55.01
9001	N	ASP	B	364	-2.626	4.094	109.151	1.00	56.58
9002	CA	ASP	B	364	-2.559	4.663	110.502	1.00	57.94
9003	CB	ASP	B	364	-1.217	4.311	111.183	1.00	58.15
9004	CG	ASP	B	364	-1.056	2.813	111.450	1.00	59.41
9005	OD1	ASP	B	364	-1.482	2.339	112.531	1.00	60.00
9006	OD2	ASP	B	364	-0.506	2.032	110.642	1.00	60.28
9007	C	ASP	B	364	-2.755	6.178	110.550	1.00	58.51
9008	O	ASP	B	364	-2.919	6.744	111.631	1.00	58.72
9009	N	LYS	B	365	-2.724	6.840	109.394	1.00	59.16
9010	CA	LYS	B	365	-2.862	8.299	109.349	1.00	59.70
9011	CB	LYS	B	365	-1.759	8.913	108.487	1.00	59.92
9012	CG	LYS	B	365	-0.397	9.007	109.174	1.00	62.07
9013	CD	LYS	B	365	-0.328	10.203	110.136	1.00	64.42
9014	CE	LYS	B	365	0.943	10.173	110.991	1.00	65.81
9015	NZ	LYS	B	365	1.022	11.341	111.931	1.00	66.10
9016	C	LYS	B	365	-4.228	8.788	108.854	1.00	59.90
9017	O	LYS	B	365	-4.772	8.291	107.858	1.00	59.90

**REPLACEMENT SHEET**  
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**FIGURE 3 FU**

A	B	C	D	E	F	G	H	I	J
9018	N	LYS	B	366	-4.769	9.783	109.545	1.00	59.96
9019	CA	LYS	B	366	-6.048	10.358	109.164	1.00	59.95
9020	CB	LYS	B	366	-6.607	11.213	110.303	1.00	60.59
9021	CG	LYS	B	366	-7.629	12.266	109.865	1.00	62.10
9022	CD	LYS	B	366	-6.953	13.597	109.519	1.00	64.53
9023	CE	LYS	B	366	-6.364	14.256	110.756	1.00	65.27
9024	NZ	LYS	B	366	-5.765	15.580	110.433	1.00	66.91
9025	C	LYS	B	366	-5.900	11.200	107.910	1.00	59.37
9026	O	LYS	B	366	-6.807	11.275	107.080	1.00	59.74
9027	N	ASP	B	367	-4.752	11.842	107.770	1.00	58.44
9028	CA	ASP	B	367	-4.535	12.692	106.614	1.00	57.48
9029	CB	ASP	B	367	-3.555	13.824	106.935	1.00	58.05
9030	CG	ASP	B	367	-4.231	15.009	107.618	1.00	59.15
9031	OD1	ASP	B	367	-3.784	15.393	108.727	1.00	59.86
9032	OD2	ASP	B	367	-5.209	15.616	107.118	1.00	59.70
9033	C	ASP	B	367	-4.061	11.898	105.400	1.00	56.40
9034	O	ASP	B	367	-3.011	11.244	105.423	1.00	56.27
9035	N	CYS	B	368	-4.863	11.943	104.345	1.00	54.53
9036	CA	CYS	B	368	-4.486	11.319	103.103	1.00	52.77
9037	CB	CYS	B	368	-5.716	10.731	102.402	1.00	52.82
9038	SG	CYS	B	368	-6.823	11.959	101.664	1.00	51.25
9039	C	CYS	B	368	-3.892	12.434	102.268	1.00	51.66
9040	O	CYS	B	368	-4.100	13.609	102.567	1.00	51.26
9041	N	THR	B	369	-3.137	12.074	101.241	1.00	50.24
9042	CA	THR	B	369	-2.620	13.074	100.325	1.00	49.06
9043	CB	THR	B	369	-1.098	13.303	100.515	1.00	49.33
9044	OG1	THR	B	369	-0.448	13.415	99.240	1.00	48.47
9045	CG2	THR	B	369	-0.447	12.091	101.165	1.00	49.87
9046	C	THR	B	369	-3.000	12.708	98.894	1.00	48.47
9047	O	THR	B	369	-3.044	11.532	98.524	1.00	48.29
9048	N	PHE	B	370	-3.300	13.733	98.109	1.00	47.18
9049	CA	PHE	B	370	-3.771	13.572	96.754	1.00	46.08
9050	CB	PHE	B	370	-4.613	14.792	96.362	1.00	46.44
9051	CG	PHE	B	370	-5.991	14.800	96.976	1.00	47.55
9052	CD1	PHE	B	370	-7.072	14.236	96.298	1.00	48.39
9053	CE1	PHE	B	370	-8.344	14.241	96.860	1.00	49.07
9054	CZ	PHE	B	370	-8.538	14.810	98.115	1.00	49.41
9055	CE2	PHE	B	370	-7.465	15.375	98.792	1.00	47.58
9056	CD2	PHE	B	370	-6.207	15.364	98.225	1.00	46.62
9057	C	PHE	B	370	-2.639	13.430	95.769	1.00	45.28
9058	O	PHE	B	370	-1.699	14.227	95.770	1.00	45.61
9059	N	ILE	B	371	-2.733	12.440	94.895	1.00	43.59
9060	CA	ILE	B	371	-1.695	12.272	93.893	1.00	41.93
9061	CB	ILE	B	371	-1.279	10.801	93.805	1.00	42.22
9062	CG1	ILE	B	371	-2.310	9.971	93.032	1.00	42.14
9063	CD1	ILE	B	371	-1.929	8.470	92.932	1.00	39.82
9064	CG2	ILE	B	371	-1.126	10.253	95.214	1.00	40.79
9065	C	ILE	B	371	-2.106	12.876	92.553	1.00	40.92
9066	O	ILE	B	371	-1.269	13.061	91.657	1.00	40.67
9067	N	THR	B	372	-3.398	13.202	92.443	1.00	39.48
9068	CA	THR	B	372	-3.965	13.860	91.264	1.00	38.02

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**FIGURE 3 FV**

A	B	C	D	E	F	G	H	I	J
9069	CB	THR	B	372	-4.930	12.909	90.508	1.00	38.39
9070	OG1	THR	B	372	-6.046	12.579	91.356	1.00	35.81
9071	CG2	THR	B	372	-4.244	11.564	90.227	1.00	36.59
9072	C	THR	B	372	-4.749	15.086	91.706	1.00	37.61
9073	O	THR	B	372	-5.222	15.155	92.834	1.00	37.09
9074	N	LYS	B	373	-4.937	16.030	90.799	1.00	37.10
9075	CA	LYS	B	373	-5.635	17.252	91.137	1.00	37.18
9076	CB	LYS	B	373	-4.728	18.190	91.964	1.00	37.58
9077	CG	LYS	B	373	-3.943	19.181	91.082	1.00	39.33
9078	CD	LYS	B	373	-3.308	20.349	91.870	1.00	43.81
9079	CE	LYS	B	373	-1.808	20.142	92.085	1.00	45.57
9080	NZ	LYS	B	373	-1.128	21.397	92.530	1.00	48.26
9081	C	LYS	B	373	-5.981	17.959	89.852	1.00	36.51
9082	O	LYS	B	373	-5.413	17.653	88.805	1.00	35.99
9083	N	GLY	B	374	-6.884	18.935	89.949	1.00	36.28
9084	CA	GLY	B	374	-7.294	19.723	88.808	1.00	36.50
9085	C	GLY	B	374	-8.799	19.722	88.614	1.00	36.62
9086	O	GLY	B	374	-9.537	19.005	89.301	1.00	35.95
9087	N	THR	B	375	-9.250	20.530	87.662	1.00	36.75
9088	CA	THR	B	375	-10.665	20.637	87.352	1.00	36.95
9089	CB	THR	B	375	-11.011	22.056	86.901	1.00	37.51
9090	OG1	THR	B	375	-10.248	22.382	85.736	1.00	38.55
9091	CG2	THR	B	375	-10.524	23.079	87.944	1.00	38.45
9092	C	THR	B	375	-11.106	19.615	86.302	1.00	36.41
9093	O	THR	B	375	-11.529	19.961	85.190	1.00	36.63
9094	N	TRP	B	376	-10.989	18.352	86.679	1.00	35.22
9095	CA	TRP	B	376	-11.459	17.236	85.889	1.00	34.47
9096	CB	TRP	B	376	-10.487	16.856	84.778	1.00	34.23
9097	CG	TRP	B	376	-9.065	16.821	85.198	1.00	34.19
9098	CD1	TRP	B	376	-8.170	17.864	85.178	1.00	33.41
9099	NE1	TRP	B	376	-6.949	17.445	85.650	1.00	33.46
9100	CE2	TRP	B	376	-7.030	16.122	85.986	1.00	32.59
9101	CD2	TRP	B	376	-8.357	15.696	85.708	1.00	32.41
9102	CE3	TRP	B	376	-8.702	14.365	85.963	1.00	29.42
9103	CZ3	TRP	B	376	-7.749	13.523	86.462	1.00	29.49
9104	CH2	TRP	B	376	-6.431	13.976	86.726	1.00	31.96
9105	CZ2	TRP	B	376	-6.058	15.266	86.488	1.00	30.16
9106	C	TRP	B	376	-11.535	16.185	86.958	1.00	34.44
9107	O	TRP	B	376	-11.211	16.483	88.104	1.00	33.98
9108	N	GLU	B	377	-11.994	14.979	86.641	1.00	34.14
9109	CA	GLU	B	377	-12.082	13.977	87.690	1.00	33.77
9110	CB	GLU	B	377	-13.526	13.797	88.152	1.00	34.05
9111	CG	GLU	B	377	-14.158	15.039	88.743	1.00	35.06
9112	CD	GLU	B	377	-15.413	14.728	89.525	1.00	35.00
9113	OE1	GLU	B	377	-15.679	15.462	90.487	1.00	36.61
9114	OE2	GLU	B	377	-16.121	13.753	89.190	1.00	33.99
9115	C	GLU	B	377	-11.518	12.624	87.319	1.00	33.35
9116	O	GLU	B	377	-11.294	12.327	86.150	1.00	33.34
9117	N	VAL	B	378	-11.316	11.812	88.351	1.00	32.77
9118	CA	VAL	B	378	-10.835	10.463	88.215	1.00	32.24
9119	CB	VAL	B	378	-9.905	10.082	89.378	1.00	32.21



**REPLACEMENT SHEET**  
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**FIGURE 3 FW**

A	B	C	D	E	F	G	H	I	J
9120	CG1	VAL	B	378	-9.514	8.606	89.265	1.00	32.33
9121	CG2	VAL	B	378	-8.655	10.997	89.392	1.00	32.04
9122	C	VAL	B	378	-12.057	9.555	88.236	1.00	32.33
9123	O	VAL	B	378	-12.786	9.491	89.222	1.00	31.70
9124	N	ILE	B	379	-12.276	8.858	87.130	1.00	32.28
9125	CA	ILE	B	379	-13.425	7.996	86.973	1.00	31.43
9126	CB	ILE	B	379	-13.538	7.615	85.479	1.00	31.71
9127	CG1	ILE	B	379	-13.463	8.877	84.611	1.00	31.03
9128	CD1	ILE	B	379	-14.552	9.908	84.894	1.00	32.63
9129	CG2	ILE	B	379	-14.755	6.766	85.214	1.00	29.10
9130	C	ILE	B	379	-13.217	6.762	87.827	1.00	31.87
9131	O	ILE	B	379	-14.068	6.411	88.661	1.00	31.76
9132	N	GLY	B	380	-12.078	6.103	87.633	1.00	31.93
9133	CA	GLY	B	380	-11.779	4.922	88.418	1.00	33.11
9134	C	GLY	B	380	-10.320	4.533	88.511	1.00	33.83
9135	O	GLY	B	380	-9.510	4.874	87.664	1.00	34.19
9136	N	ILE	B	381	-9.979	3.808	89.565	1.00	34.81
9137	CA	ILE	B	381	-8.635	3.268	89.690	1.00	35.36
9138	CB	ILE	B	381	-8.191	3.255	91.143	1.00	35.26
9139	CG1	ILE	B	381	-7.923	4.694	91.613	1.00	35.36
9140	CD1	ILE	B	381	-7.818	4.864	93.143	1.00	33.27
9141	CG2	ILE	B	381	-6.952	2.379	91.275	1.00	36.08
9142	C	ILE	B	381	-8.661	1.854	89.122	1.00	35.57
9143	O	ILE	B	381	-9.324	0.978	89.662	1.00	35.74
9144	N	GLU	B	382	-7.929	1.646	88.036	1.00	36.13
9145	CA	GLU	B	382	-7.940	0.385	87.300	1.00	36.98
9146	CB	GLU	B	382	-7.780	0.670	85.802	1.00	37.12
9147	CG	GLU	B	382	-8.783	1.692	85.284	1.00	38.08
9148	CD	GLU	B	382	-10.204	1.374	85.714	1.00	39.72
9149	OE1	GLU	B	382	-10.645	0.217	85.552	1.00	41.76
9150	OE2	GLU	B	382	-10.881	2.275	86.235	1.00	41.40
9151	C	GLU	B	382	-6.918	-0.664	87.727	1.00	37.28
9152	O	GLU	B	382	-7.170	-1.853	87.580	1.00	37.66
9153	N	ALA	B	383	-5.766	-0.239	88.233	1.00	37.71
9154	CA	ALA	B	383	-4.754	-1.197	88.656	1.00	38.20
9155	CB	ALA	B	383	-4.275	-2.047	87.475	1.00	38.00
9156	C	ALA	B	383	-3.574	-0.537	89.359	1.00	38.59
9157	O	ALA	B	383	-3.209	0.615	89.100	1.00	39.16
9158	N	LEU	B	384	-2.948	-1.301	90.230	1.00	38.97
9159	CA	LEU	B	384	-1.912	-0.757	91.071	1.00	39.32
9160	CB	LEU	B	384	-2.474	-0.631	92.491	1.00	39.02
9161	CG	LEU	B	384	-1.928	0.375	93.520	1.00	38.78
9162	CD1	LEU	B	384	-0.764	1.182	93.029	1.00	36.84
9163	CD2	LEU	B	384	-1.610	-0.315	94.847	1.00	36.07
9164	C	LEU	B	384	-0.754	-1.726	91.120	1.00	39.56
9165	O	LEU	B	384	-0.951	-2.891	91.452	1.00	39.19
9166	N	THR	B	385	0.442	-1.258	90.772	1.00	39.91
9167	CA	THR	B	385	1.646	-2.050	91.019	1.00	40.60
9168	CB	THR	B	385	2.463	-2.312	89.756	1.00	40.20
9169	OG1	THR	B	385	2.864	-1.060	89.193	1.00	40.20
9170	CG2	THR	B	385	1.622	-2.960	88.685	1.00	40.73

**REPLACEMENT SHEET**  
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**FIGURE 3 FX**

A	B	C	D	E	F	G	H	I	J
9171	C	THR	B	385	2.499	-1.252	91.994	1.00	41.37
9172	O	THR	B	385	2.147	-0.128	92.362	1.00	41.22
9173	N	SER	B	386	3.641	-1.821	92.374	1.00	42.02
9174	CA	SER	B	386	4.524	-1.206	93.350	1.00	42.34
9175	CB	SER	B	386	5.639	-2.181	93.739	1.00	42.96
9176	OG	SER	B	386	6.026	-2.983	92.630	1.00	44.13
9177	C	SER	B	386	5.107	0.094	92.849	1.00	42.48
9178	O	SER	B	386	5.543	0.923	93.646	1.00	42.77
9179	N	ASP	B	387	5.099	0.285	91.532	1.00	42.54
9180	CA	ASP	B	387	5.655	1.497	90.940	1.00	42.32
9181	CB	ASP	B	387	6.782	1.137	89.976	1.00	42.67
9182	CG	ASP	B	387	7.871	0.327	90.651	1.00	43.48
9183	OD1	ASP	B	387	8.732	0.932	91.321	1.00	44.23
9184	OD2	ASP	B	387	7.924	-0.918	90.599	1.00	45.16
9185	C	ASP	B	387	4.619	2.352	90.227	1.00	42.29
9186	O	ASP	B	387	4.841	3.543	89.988	1.00	42.49
9187	N	TYR	B	388	3.481	1.754	89.893	1.00	41.64
9188	CA	TYR	B	388	2.468	2.488	89.153	1.00	40.99
9189	CB	TYR	B	388	2.595	2.189	87.661	1.00	41.59
9190	CG	TYR	B	388	3.849	2.764	87.044	1.00	42.34
9191	CD1	TYR	B	388	4.858	1.939	86.558	1.00	42.79
9192	CE1	TYR	B	388	6.006	2.468	85.987	1.00	44.62
9193	CZ	TYR	B	388	6.159	3.845	85.910	1.00	46.09
9194	OH	TYR	B	388	7.287	4.403	85.352	1.00	48.13
9195	CE2	TYR	B	388	5.170	4.680	86.380	1.00	46.23
9196	CD2	TYR	B	388	4.018	4.133	86.945	1.00	45.16
9197	C	TYR	B	388	1.024	2.288	89.616	1.00	39.94
9198	O	TYR	B	388	0.648	1.252	90.157	1.00	39.85
9199	N	LEU	B	389	0.237	3.331	89.408	1.00	39.01
9200	CA	LEU	B	389	-1.186	3.335	89.689	1.00	37.62
9201	CB	LEU	B	389	-1.499	4.401	90.724	1.00	37.52
9202	CG	LEU	B	389	-2.940	4.749	91.121	1.00	37.00
9203	CD1	LEU	B	389	-3.837	4.911	89.923	1.00	35.57
9204	CD2	LEU	B	389	-3.503	3.738	92.076	1.00	36.02
9205	C	LEU	B	389	-1.815	3.701	88.360	1.00	36.86
9206	O	LEU	B	389	-1.472	4.733	87.779	1.00	36.59
9207	N	TYR	B	390	-2.698	2.845	87.849	1.00	35.64
9208	CA	TYR	B	390	-3.348	3.139	86.585	1.00	34.51
9209	CB	TYR	B	390	-3.358	1.918	85.672	1.00	34.68
9210	CG	TYR	B	390	-1.998	1.432	85.283	1.00	35.76
9211	CD1	TYR	B	390	-1.472	1.725	84.043	1.00	35.57
9212	CE1	TYR	B	390	-0.231	1.290	83.690	1.00	38.07
9213	CZ	TYR	B	390	0.505	0.535	84.575	1.00	37.51
9214	OH	TYR	B	390	1.747	0.089	84.205	1.00	40.72
9215	CE2	TYR	B	390	0.011	0.234	85.816	1.00	36.63
9216	CD2	TYR	B	390	-1.231	0.680	86.165	1.00	36.53
9217	C	TYR	B	390	-4.774	3.597	86.823	1.00	33.58
9218	O	TYR	B	390	-5.513	3.013	87.602	1.00	32.85
9219	N	TYR	B	391	-5.186	4.626	86.112	1.00	32.64
9220	CA	TYR	B	391	-6.520	5.104	86.333	1.00	32.08
9221	CB	TYR	B	391	-6.524	6.142	87.460	1.00	31.85

**REPLACEMENT SHEET**  
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**FIGURE 3 FY**

A	B	C	D	E	F	G	H	I	J
9222	CG	TYR	B	391	-5.809	7.414	87.109	1.00	32.71
9223	CD1	TYR	B	391	-6.491	8.465	86.496	1.00	34.03
9224	CE1	TYR	B	391	-5.853	9.642	86.183	1.00	35.77
9225	CZ	TYR	B	391	-4.510	9.789	86.475	1.00	35.74
9226	OH	TYR	B	391	-3.879	10.974	86.145	1.00	37.71
9227	CE2	TYR	B	391	-3.810	8.762	87.064	1.00	34.02
9228	CD2	TYR	B	391	-4.461	7.576	87.384	1.00	32.38
9229	C	TYR	B	391	-7.104	5.665	85.066	1.00	31.15
9230	O	TYR	B	391	-6.387	5.894	84.094	1.00	30.75
9231	N	ILE	B	392	-8.419	5.869	85.085	1.00	30.53
9232	CA	ILE	B	392	-9.120	6.464	83.951	1.00	29.73
9233	CB	ILE	B	392	-10.341	5.621	83.588	1.00	29.87
9234	CG1	ILE	B	392	-9.924	4.221	83.109	1.00	29.10
9235	CD1	ILE	B	392	-9.997	4.037	81.626	1.00	28.29
9236	CG2	ILE	B	392	-11.199	6.372	82.574	1.00	29.17
9237	C	ILE	B	392	-9.615	7.840	84.375	1.00	29.55
9238	O	ILE	B	392	-10.098	8.012	85.496	1.00	29.03
9239	N	SER	B	393	-9.528	8.817	83.489	1.00	29.09
9240	CA	SER	B	393	-9.995	10.120	83.869	1.00	30.52
9241	CB	SER	B	393	-8.868	10.916	84.529	1.00	30.15
9242	OG	SER	B	393	-8.127	11.567	83.519	1.00	30.36
9243	C	SER	B	393	-10.501	10.873	82.660	1.00	31.45
9244	O	SER	B	393	-10.301	10.464	81.525	1.00	31.45
9245	N	ASN	B	394	-11.166	11.986	82.910	1.00	32.96
9246	CA	ASN	B	394	-11.640	12.805	81.819	1.00	34.79
9247	CB	ASN	B	394	-13.131	13.121	81.993	1.00	34.52
9248	CG	ASN	B	394	-13.448	13.719	83.359	1.00	35.56
9249	OD1	ASN	B	394	-12.543	14.092	84.109	1.00	37.73
9250	ND2	ASN	B	394	-14.729	13.823	83.682	1.00	35.03
9251	C	ASN	B	394	-10.806	14.084	81.735	1.00	36.01
9252	O	ASN	B	394	-11.332	15.149	81.449	1.00	36.25
9253	N	GLU	B	395	-9.502	13.984	81.995	1.00	37.46
9254	CA	GLU	B	395	-8.661	15.170	81.909	1.00	38.43
9255	CB	GLU	B	395	-7.333	15.003	82.657	1.00	38.65
9256	CG	GLU	B	395	-6.412	16.203	82.463	1.00	40.19
9257	CD	GLU	B	395	-5.069	16.107	83.176	1.00	42.90
9258	OE1	GLU	B	395	-4.430	17.176	83.354	1.00	44.92
9259	OE2	GLU	B	395	-4.634	14.997	83.551	1.00	41.19
9260	C	GLU	B	395	-8.402	15.547	80.462	1.00	38.83
9261	O	GLU	B	395	-8.514	16.707	80.084	1.00	39.14
9262	N	TYR	B	396	-8.061	14.575	79.633	1.00	39.51
9263	CA	TYR	B	396	-7.753	14.923	78.257	1.00	40.26
9264	CB	TYR	B	396	-7.789	13.723	77.316	1.00	40.51
9265	CG	TYR	B	396	-7.015	14.016	76.048	1.00	41.76
9266	CD1	TYR	B	396	-7.560	13.779	74.793	1.00	43.07
9267	CE1	TYR	B	396	-6.844	14.055	73.640	1.00	43.54
9268	CZ	TYR	B	396	-5.574	14.593	73.737	1.00	45.08
9269	OH	TYR	B	396	-4.845	14.882	72.598	1.00	47.21
9270	CE2	TYR	B	396	-5.014	14.838	74.971	1.00	43.68
9271	CD2	TYR	B	396	-5.732	14.549	76.115	1.00	42.90
9272	C	TYR	B	396	-8.668	15.992	77.697	1.00	40.44

**REPLACEMENT SHEET**  
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**FIGURE 3 FZ**

A	B	C D E	F	G	H	I	J
9273	O	TYR B 396	-9.867	15.759	77.530	1.00	40.96
9274	N	LYS B 397	-8.080	17.150	77.398	1.00	40.48
9275	CA	LYS B 397	-8.744	18.277	76.728	1.00	39.95
9276	CB	LYS B 397	-9.266	17.862	75.356	1.00	40.33
9277	CG	LYS B 397	-8.177	17.582	74.339	1.00	42.20
9278	CD	LYS B 397	-8.772	16.975	73.082	1.00	45.22
9279	CE	LYS B 397	-7.754	16.878	71.950	1.00	47.51
9280	NZ	LYS B 397	-8.449	16.664	70.631	1.00	48.01
9281	C	LYS B 397	-9.861	18.932	77.500	1.00	39.35
9282	O	LYS B 397	-10.658	19.672	76.927	1.00	38.89
9283	N	GLY B 398	-9.918	18.678	78.800	1.00	38.74
9284	CA	GLY B 398	-10.986	19.241	79.604	1.00	38.23
9285	C	GLY B 398	-12.361	18.833	79.094	1.00	37.91
9286	O	GLY B 398	-13.316	19.605	79.202	1.00	38.46
9287	N	MET B 399	-12.464	17.639	78.510	1.00	36.88
9288	CA	MET B 399	-13.754	17.115	78.037	1.00	36.07
9289	CB	MET B 399	-13.597	16.470	76.680	1.00	36.62
9290	CG	MET B 399	-13.082	17.399	75.632	1.00	38.67
9291	SD	MET B 399	-12.656	16.504	74.157	1.00	45.06
9292	CE	MET B 399	-14.281	16.188	73.424	1.00	42.92
9293	C	MET B 399	-14.266	16.076	79.018	1.00	34.89
9294	O	MET B 399	-13.810	14.937	79.012	1.00	34.49
9295	N	PRO B 400	-15.220	16.470	79.852	1.00	33.87
9296	CA	PRO B 400	-15.733	15.620	80.938	1.00	33.31
9297	CB	PRO B 400	-16.821	16.487	81.579	1.00	33.52
9298	CG	PRO B 400	-16.546	17.877	81.129	1.00	33.75
9299	CD	PRO B 400	-15.900	17.772	79.781	1.00	33.90
9300	C	PRO B 400	-16.362	14.310	80.463	1.00	33.03
9301	O	PRO B 400	-16.481	13.367	81.239	1.00	32.45
9302	N	GLY B 401	-16.788	14.272	79.209	1.00	32.82
9303	CA	GLY B 401	-17.378	13.077	78.644	1.00	33.58
9304	C	GLY B 401	-16.364	12.345	77.791	1.00	33.84
9305	O	GLY B 401	-16.715	11.575	76.891	1.00	33.48
9306	N	GLY B 402	-15.089	12.601	78.062	1.00	33.60
9307	CA	GLY B 402	-14.025	11.926	77.345	1.00	33.73
9308	C	GLY B 402	-13.471	10.992	78.383	1.00	34.35
9309	O	GLY B 402	-13.734	11.168	79.573	1.00	34.65
9310	N	ARG B 403	-12.684	10.019	77.963	1.00	34.43
9311	CA	ARG B 403	-12.236	8.996	78.886	1.00	34.51
9312	CB	ARG B 403	-13.301	7.889	78.914	1.00	34.75
9313	CG	ARG B 403	-14.006	7.629	80.231	1.00	36.23
9314	CD	ARG B 403	-14.361	8.847	81.041	1.00	38.13
9315	NE	ARG B 403	-15.671	8.737	81.693	1.00	38.92
9316	CZ	ARG B 403	-16.562	9.728	81.708	1.00	39.23
9317	NH1	ARG B 403	-17.729	9.578	82.317	1.00	38.64
9318	NH2	ARG B 403	-16.282	10.878	81.099	1.00	37.76
9319	C	ARG B 403	-10.919	8.434	78.353	1.00	34.08
9320	O	ARG B 403	-10.853	8.032	77.198	1.00	33.75
9321	N	ASN B 404	-9.876	8.432	79.185	1.00	34.22
9322	CA	ASN B 404	-8.551	7.927	78.790	1.00	33.84
9323	CB	ASN B 404	-7.671	9.057	78.262	1.00	33.63

**REPLACEMENT SHEET**  
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**FIGURE 3 GA**

A	B	C	D	E	F	G	H	I	J
9324	CG	ASN	B	404	-8.034	9.472	76.878	1.00	33.22
9325	OD1	ASN	B	404	-8.649	10.515	76.686	1.00	33.41
9326	ND2	ASN	B	404	-7.662	8.659	75.889	1.00	32.71
9327	C	ASN	B	404	-7.822	7.263	79.951	1.00	33.53
9328	O	ASN	B	404	-8.082	7.581	81.097	1.00	32.56
9329	N	LEU	B	405	-6.912	6.341	79.635	1.00	33.69
9330	CA	LEU	B	405	-6.123	5.631	80.641	1.00	33.92
9331	CB	LEU	B	405	-5.784	4.245	80.117	1.00	33.85
9332	CG	LEU	B	405	-4.928	3.321	80.968	1.00	34.67
9333	CD1	LEU	B	405	-5.558	3.125	82.345	1.00	34.97
9334	CD2	LEU	B	405	-4.747	2.000	80.249	1.00	34.55
9335	C	LEU	B	405	-4.825	6.397	80.967	1.00	34.30
9336	O	LEU	B	405	-4.103	6.824	80.073	1.00	33.84
9337	N	TYR	B	406	-4.548	6.594	82.249	1.00	35.07
9338	CA	TYR	B	406	-3.324	7.281	82.656	1.00	35.88
9339	CB	TYR	B	406	-3.607	8.618	83.337	1.00	35.36
9340	CG	TYR	B	406	-4.211	9.656	82.428	1.00	35.76
9341	CD1	TYR	B	406	-3.443	10.691	81.932	1.00	35.18
9342	CE1	TYR	B	406	-3.994	11.654	81.101	1.00	37.36
9343	CZ	TYR	B	406	-5.336	11.577	80.770	1.00	36.65
9344	OH	TYR	B	406	-5.870	12.530	79.941	1.00	39.75
9345	CE2	TYR	B	406	-6.126	10.555	81.252	1.00	34.01
9346	CD2	TYR	B	406	-5.573	9.606	82.075	1.00	33.96
9347	C	TYR	B	406	-2.522	6.427	83.603	1.00	36.60
9348	O	TYR	B	406	-3.066	5.575	84.321	1.00	36.45
9349	N	LYS	B	407	-1.222	6.692	83.615	1.00	37.42
9350	CA	LYS	B	407	-0.297	5.990	84.484	1.00	38.56
9351	CB	LYS	B	407	0.597	5.082	83.633	1.00	38.56
9352	CG	LYS	B	407	1.995	4.805	84.154	1.00	38.49
9353	CD	LYS	B	407	2.579	3.634	83.370	1.00	38.76
9354	CE	LYS	B	407	4.038	3.832	82.997	1.00	39.60
9355	NZ	LYS	B	407	4.362	3.057	81.748	1.00	39.08
9356	C	LYS	B	407	0.519	6.999	85.294	1.00	38.99
9357	O	LYS	B	407	1.195	7.867	84.733	1.00	39.39
9358	N	ILE	B	408	0.430	6.889	86.614	1.00	39.35
9359	CA	ILE	B	408	1.155	7.776	87.511	1.00	39.42
9360	CB	ILE	B	408	0.161	8.552	88.403	1.00	39.46
9361	CG1	ILE	B	408	0.914	9.500	89.347	1.00	40.00
9362	CD1	ILE	B	408	0.022	10.521	90.018	1.00	39.47
9363	CG2	ILE	B	408	-0.733	7.591	89.194	1.00	37.63
9364	C	ILE	B	408	2.175	7.018	88.368	1.00	39.81
9365	O	ILE	B	408	1.853	6.018	89.016	1.00	39.29
9366	N	GLN	B	409	3.412	7.508	88.353	1.00	40.51
9367	CA	GLN	B	409	4.507	6.923	89.129	1.00	40.64
9368	CB	GLN	B	409	5.841	7.512	88.649	1.00	40.42
9369	CG	GLN	B	409	7.090	6.901	89.267	1.00	41.41
9370	CD	GLN	B	409	8.361	7.664	88.884	1.00	41.94
9371	OE1	GLN	B	409	8.638	7.861	87.707	1.00	43.52
9372	NE2	GLN	B	409	9.117	8.096	89.878	1.00	39.59
9373	C	GLN	B	409	4.290	7.215	90.608	1.00	40.92
9374	O	GLN	B	409	4.192	8.379	91.003	1.00	41.00

**REPLACEMENT SHEET**  
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**FIGURE 3 GB**

A	B	C	D	E	F	G	H	I	J
9375	N	LEU	B	410	4.193	6.163	91.418	1.00	41.42
9376	CA	LEU	B	410	3.981	6.300	92.857	1.00	42.64
9377	CB	LEU	B	410	3.837	4.924	93.508	1.00	42.69
9378	CG	LEU	B	410	2.492	4.197	93.447	1.00	43.09
9379	CD1	LEU	B	410	1.736	4.560	92.189	1.00	42.37
9380	CD2	LEU	B	410	2.721	2.707	93.530	1.00	42.61
9381	C	LEU	B	410	5.092	7.041	93.599	1.00	43.77
9382	O	LEU	B	410	4.931	7.370	94.777	1.00	44.22
9383	N	SER	B	411	6.220	7.282	92.936	1.00	44.48
9384	CA	SER	B	411	7.336	7.946	93.592	1.00	45.35
9385	CB	SER	B	411	8.661	7.209	93.324	1.00	45.03
9386	OG	SER	B	411	9.035	7.308	91.961	1.00	43.76
9387	C	SER	B	411	7.429	9.396	93.156	1.00	46.24
9388	O	SER	B	411	8.186	10.182	93.738	1.00	46.61
9389	N	ASP	B	412	6.659	9.760	92.137	1.00	46.78
9390	CA	ASP	B	412	6.678	11.143	91.665	1.00	47.56
9391	CB	ASP	B	412	7.915	11.407	90.801	1.00	47.90
9392	CG	ASP	B	412	8.105	12.876	90.501	1.00	50.22
9393	OD1	ASP	B	412	8.902	13.203	89.592	1.00	53.28
9394	OD2	ASP	B	412	7.502	13.781	91.124	1.00	51.81
9395	C	ASP	B	412	5.384	11.530	90.933	1.00	47.35
9396	O	ASP	B	412	5.277	11.438	89.706	1.00	47.12
9397	N	TYR	B	413	4.420	11.979	91.730	1.00	47.17
9398	CA	TYR	B	413	3.089	12.378	91.294	1.00	46.56
9399	CB	TYR	B	413	2.360	13.009	92.477	1.00	45.92
9400	CG	TYR	B	413	2.276	12.066	93.659	1.00	43.46
9401	CD1	TYR	B	413	2.309	10.697	93.462	1.00	40.02
9402	CE1	TYR	B	413	2.214	9.818	94.514	1.00	39.75
9403	CZ	TYR	B	413	2.108	10.288	95.793	1.00	38.66
9404	OH	TYR	B	413	2.025	9.382	96.805	1.00	39.90
9405	CE2	TYR	B	413	2.085	11.637	96.042	1.00	40.62
9406	CD2	TYR	B	413	2.162	12.535	94.964	1.00	41.96
9407	C	TYR	B	413	3.144	13.343	90.134	1.00	47.27
9408	O	TYR	B	413	2.156	13.554	89.436	1.00	47.56
9409	N	THR	B	414	4.315	13.918	89.915	1.00	47.67
9410	CA	THR	B	414	4.484	14.850	88.824	1.00	48.13
9411	CB	THR	B	414	5.683	15.764	89.103	1.00	48.45
9412	OG1	THR	B	414	6.839	14.958	89.386	1.00	48.02
9413	CG2	THR	B	414	5.463	16.548	90.399	1.00	49.00
9414	C	THR	B	414	4.715	14.059	87.549	1.00	48.31
9415	O	THR	B	414	4.715	14.614	86.451	1.00	48.30
9416	N	LYS	B	415	4.932	12.760	87.696	1.00	48.57
9417	CA	LYS	B	415	5.173	11.919	86.536	1.00	49.01
9418	CB	LYS	B	415	6.399	11.024	86.740	1.00	49.32
9419	CG	LYS	B	415	7.717	11.805	86.908	1.00	51.05
9420	CD	LYS	B	415	8.860	11.204	86.085	1.00	54.34
9421	CE	LYS	B	415	8.896	11.775	84.661	1.00	57.13
9422	NZ	LYS	B	415	9.791	11.003	83.720	1.00	58.80
9423	C	LYS	B	415	3.937	11.103	86.202	1.00	48.84
9424	O	LYS	B	415	3.742	9.991	86.705	1.00	49.14
9425	N	VAL	B	416	3.092	11.682	85.361	1.00	48.53

**REPLACEMENT SHEET**  
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**FIGURE 3 GC**

A	B	C	D	E	F	G	H	I	J
9426	CA	VAL	B	416	1.879	11.024	84.907	1.00	48.03
9427	CB	VAL	B	416	0.631	11.859	85.237	1.00	47.91
9428	CG1	VAL	B	416	-0.630	11.172	84.714	1.00	47.97
9429	CG2	VAL	B	416	0.519	12.079	86.717	1.00	48.17
9430	C	VAL	B	416	1.936	10.869	83.398	1.00	47.87
9431	O	VAL	B	416	2.175	11.844	82.682	1.00	47.53
9432	N	THR	B	417	1.703	9.650	82.915	1.00	47.45
9433	CA	THR	B	417	1.698	9.403	81.478	1.00	47.54
9434	CB	THR	B	417	2.700	8.274	81.121	1.00	47.46
9435	OG1	THR	B	417	4.026	8.632	81.546	1.00	48.55
9436	CG2	THR	B	417	2.832	8.139	79.619	1.00	47.28
9437	C	THR	B	417	0.306	8.999	81.006	1.00	47.33
9438	O	THR	B	417	-0.344	8.159	81.624	1.00	47.27
9439	N	CYS	B	418	-0.168	9.596	79.920	1.00	47.47
9440	CA	CYS	B	418	-1.438	9.141	79.363	1.00	47.29
9441	CB	CYS	B	418	-2.240	10.250	78.697	1.00	47.44
9442	SG	CYS	B	418	-3.920	9.687	78.237	1.00	47.35
9443	C	CYS	B	418	-1.164	8.056	78.356	1.00	47.04
9444	O	CYS	B	418	-0.508	8.293	77.345	1.00	47.45
9445	N	LEU	B	419	-1.685	6.868	78.631	1.00	46.68
9446	CA	LEU	B	419	-1.483	5.706	77.771	1.00	46.41
9447	CB	LEU	B	419	-1.611	4.441	78.609	1.00	46.32
9448	CG	LEU	B	419	-0.833	4.462	79.918	1.00	46.29
9449	CD1	LEU	B	419	-1.130	3.222	80.736	1.00	46.26
9450	CD2	LEU	B	419	0.653	4.575	79.610	1.00	46.66
9451	C	LEU	B	419	-2.424	5.578	76.571	1.00	46.43
9452	O	LEU	B	419	-2.205	4.728	75.709	1.00	46.90
9453	N	SER	B	420	-3.472	6.388	76.495	1.00	46.32
9454	CA	SER	B	420	-4.432	6.219	75.395	1.00	46.23
9455	CB	SER	B	420	-5.740	5.617	75.915	1.00	45.90
9456	OG	SER	B	420	-6.426	6.523	76.755	1.00	45.99
9457	C	SER	B	420	-4.740	7.475	74.611	1.00	46.02
9458	O	SER	B	420	-5.144	7.405	73.452	1.00	46.35
9459	N	CYS	B	421	-4.536	8.621	75.240	1.00	46.04
9460	CA	CYS	B	421	-4.882	9.905	74.644	1.00	46.50
9461	CB	CYS	B	421	-4.250	11.057	75.440	1.00	46.49
9462	SG	CYS	B	421	-4.787	11.169	77.167	1.00	47.72
9463	C	CYS	B	421	-4.522	10.062	73.173	1.00	46.81
9464	O	CYS	B	421	-5.298	10.615	72.401	1.00	46.67
9465	N	GLU	B	422	-3.347	9.581	72.786	1.00	47.35
9466	CA	GLU	B	422	-2.831	9.850	71.446	1.00	47.86
9467	CB	GLU	B	422	-1.472	10.570	71.544	1.00	47.88
9468	CG	GLU	B	422	-1.433	11.997	71.002	1.00	50.00
9469	CD	GLU	B	422	-2.245	13.011	71.808	1.00	53.03
9470	OE1	GLU	B	422	-2.082	13.091	73.046	1.00	53.34
9471	OE2	GLU	B	422	-3.043	13.757	71.189	1.00	54.03
9472	C	GLU	B	422	-2.736	8.640	70.517	1.00	47.69
9473	O	GLU	B	422	-2.197	8.749	69.421	1.00	47.87
9474	N	LEU	B	423	-3.274	7.501	70.938	1.00	47.64
9475	CA	LEU	B	423	-3.241	6.288	70.113	1.00	47.92
9476	CB	LEU	B	423	-3.915	5.128	70.841	1.00	47.08

**REPLACEMENT SHEET**  
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**FIGURE 3 GD**

A	B	C	D	E	F	G	H	I	J
9477	CG	LEU	B	423	-3.146	4.584	72.043	1.00	47.38
9478	CD1	LEU	B	423	-3.918	3.471	72.729	1.00	46.19
9479	CD2	LEU	B	423	-1.744	4.100	71.638	1.00	46.08
9480	C	LEU	B	423	-3.904	6.492	68.748	1.00	48.36
9481	O	LEU	B	423	-3.318	6.187	67.705	1.00	48.49
9482	N	ASN	B	424	-5.134	6.999	68.782	1.00	48.71
9483	CA	ASN	B	424	-5.939	7.302	67.608	1.00	49.05
9484	CB	ASN	B	424	-6.833	6.108	67.237	1.00	49.54
9485	CG	ASN	B	424	-6.105	4.995	66.455	1.00	51.63
9486	OD1	ASN	B	424	-5.835	5.123	65.252	1.00	53.95
9487	ND2	ASN	B	424	-5.848	3.871	67.129	1.00	52.35
9488	C	ASN	B	424	-6.854	8.459	68.025	1.00	48.74
9489	O	ASN	B	424	-8.043	8.254	68.251	1.00	49.07
9490	N	PRO	B	425	-6.302	9.660	68.164	1.00	48.43
9491	CA	PRO	B	425	-7.054	10.847	68.617	1.00	48.02
9492	CB	PRO	B	425	-6.050	11.989	68.404	1.00	47.86
9493	CG	PRO	B	425	-5.023	11.403	67.490	1.00	48.40
9494	CD	PRO	B	425	-4.879	9.982	67.959	1.00	48.45
9495	C	PRO	B	425	-8.381	11.199	67.918	1.00	47.59
9496	O	PRO	B	425	-9.222	11.842	68.540	1.00	46.93
9497	N	GLU	B	426	-8.561	10.827	66.660	1.00	47.18
9498	CA	GLU	B	426	-9.802	11.166	65.971	1.00	46.96
9499	CB	GLU	B	426	-9.535	11.492	64.501	1.00	47.53
9500	CG	GLU	B	426	-8.931	12.870	64.268	1.00	50.42
9501	CD	GLU	B	426	-8.861	13.226	62.797	1.00	55.18
9502	OE1	GLU	B	426	-9.438	12.456	61.982	1.00	58.05
9503	OE2	GLU	B	426	-8.235	14.264	62.451	1.00	55.78
9504	C	GLU	B	426	-10.844	10.055	66.088	1.00	45.85
9505	O	GLU	B	426	-12.048	10.310	66.056	1.00	46.07
9506	N	ARG	B	427	-10.372	8.824	66.218	1.00	44.60
9507	CA	ARG	B	427	-11.245	7.669	66.346	1.00	43.20
9508	CB	ARG	B	427	-10.545	6.432	65.742	1.00	43.19
9509	CG	ARG	B	427	-11.100	5.047	66.136	1.00	42.79
9510	CD	ARG	B	427	-11.837	4.273	65.033	1.00	42.22
9511	NE	ARG	B	427	-10.961	3.411	64.240	1.00	43.75
9512	CZ	ARG	B	427	-11.117	2.095	64.123	1.00	43.04
9513	NH1	ARG	B	427	-10.278	1.382	63.381	1.00	41.93
9514	NH2	ARG	B	427	-12.111	1.484	64.752	1.00	42.41
9515	C	ARG	B	427	-11.555	7.448	67.825	1.00	42.54
9516	O	ARG	B	427	-12.665	7.066	68.198	1.00	41.81
9517	N	CYS	B	428	-10.578	7.736	68.678	1.00	41.68
9518	CA	CYS	B	428	-10.702	7.308	70.059	1.00	40.78
9519	CB	CYS	B	428	-9.771	6.114	70.280	1.00	40.84
9520	SG	CYS	B	428	-10.305	4.676	69.310	1.00	40.30
9521	C	CYS	B	428	-10.513	8.331	71.156	1.00	40.51
9522	O	CYS	B	428	-9.447	8.941	71.285	1.00	40.62
9523	N	GLN	B	429	-11.566	8.524	71.945	1.00	39.36
9524	CA	GLN	B	429	-11.482	9.414	73.078	1.00	38.88
9525	CB	GLN	B	429	-11.630	10.883	72.658	1.00	39.13
9526	CG	GLN	B	429	-12.909	11.232	71.952	1.00	41.45
9527	CD	GLN	B	429	-12.815	12.506	71.135	1.00	42.09



**REPLACEMENT SHEET**  
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**FIGURE 3 GE**

A	B	C	D	E	F	G	H	I	J
9528	OE1	GLN	B	429	-12.231	12.518	70.052	1.00	42.86
9529	NE2	GLN	B	429	-13.410	13.571	71.637	1.00	43.57
9530	C	GLN	B	429	-12.407	9.030	74.230	1.00	38.04
9531	O	GLN	B	429	-12.768	9.873	75.025	1.00	38.38
9532	N	TYR	B	430	-12.775	7.747	74.301	1.00	36.73
9533	CA	TYR	B	430	-13.530	7.164	75.421	1.00	35.62
9534	CB	TYR	B	430	-15.036	7.101	75.130	1.00	35.47
9535	CG	TYR	B	430	-15.935	6.976	76.345	1.00	33.00
9536	CD1	TYR	B	430	-16.190	5.741	76.928	1.00	30.65
9537	CE1	TYR	B	430	-17.013	5.634	78.036	1.00	31.86
9538	CZ	TYR	B	430	-17.612	6.776	78.569	1.00	32.82
9539	OH	TYR	B	430	-18.456	6.680	79.661	1.00	32.17
9540	CE2	TYR	B	430	-17.380	8.009	77.996	1.00	31.47
9541	CD2	TYR	B	430	-16.546	8.103	76.898	1.00	32.86
9542	C	TYR	B	430	-13.000	5.747	75.573	1.00	35.39
9543	O	TYR	B	430	-13.337	4.876	74.766	1.00	36.02
9544	N	TYR	B	431	-12.178	5.514	76.595	1.00	34.48
9545	CA	TYR	B	431	-11.521	4.228	76.768	1.00	33.97
9546	CB	TYR	B	431	-9.993	4.411	76.819	1.00	34.10
9547	CG	TYR	B	431	-9.288	4.635	75.502	1.00	33.35
9548	CD1	TYR	B	431	-8.782	3.568	74.780	1.00	33.82
9549	CE1	TYR	B	431	-8.126	3.764	73.577	1.00	32.81
9550	CZ	TYR	B	431	-7.975	5.024	73.089	1.00	32.09
9551	OH	TYR	B	431	-7.317	5.210	71.884	1.00	34.18
9552	CE2	TYR	B	431	-8.474	6.106	73.790	1.00	32.54
9553	CD2	TYR	B	431	-9.109	5.909	74.994	1.00	31.95
9554	C	TYR	B	431	-11.893	3.521	78.054	1.00	33.98
9555	O	TYR	B	431	-12.132	4.149	79.085	1.00	33.82
9556	N	SER	B	432	-11.916	2.201	77.992	1.00	33.64
9557	CA	SER	B	432	-11.991	1.400	79.197	1.00	33.67
9558	CB	SER	B	432	-13.336	0.693	79.344	1.00	33.69
9559	OG	SER	B	432	-13.557	-0.209	78.285	1.00	35.22
9560	C	SER	B	432	-10.831	0.417	79.082	1.00	33.30
9561	O	SER	B	432	-10.242	0.260	78.000	1.00	32.90
9562	N	VAL	B	433	-10.493	-0.252	80.171	1.00	33.35
9563	CA	VAL	B	433	-9.318	-1.105	80.138	1.00	33.52
9564	CB	VAL	B	433	-8.066	-0.355	80.689	1.00	33.67
9565	CG1	VAL	B	433	-8.301	0.133	82.113	1.00	31.86
9566	CG2	VAL	B	433	-6.806	-1.245	80.621	1.00	33.10
9567	C	VAL	B	433	-9.482	-2.396	80.898	1.00	34.40
9568	O	VAL	B	433	-10.216	-2.469	81.876	1.00	34.34
9569	N	SER	B	434	-8.792	-3.429	80.434	1.00	35.52
9570	CA	SER	B	434	-8.774	-4.692	81.155	1.00	36.83
9571	CB	SER	B	434	-9.631	-5.760	80.476	1.00	36.32
9572	OG	SER	B	434	-9.797	-6.868	81.354	1.00	36.59
9573	C	SER	B	434	-7.340	-5.180	81.297	1.00	37.75
9574	O	SER	B	434	-6.682	-5.530	80.307	1.00	37.42
9575	N	PHE	B	435	-6.874	-5.205	82.541	1.00	39.26
9576	CA	PHE	B	435	-5.519	-5.633	82.862	1.00	40.71
9577	CB	PHE	B	435	-4.987	-4.889	84.093	1.00	40.80
9578	CG	PHE	B	435	-4.566	-3.480	83.812	1.00	41.50

**REPLACEMENT SHEET**  
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**FIGURE 3 GF**

A	B	C	D	E	F	G	H	I	J
9579	CD1	PHE	B	435	-5.471	-2.434	83.929	1.00	41.05
9580	CE1	PHE	B	435	-5.087	-1.145	83.671	1.00	40.57
9581	CZ	PHE	B	435	-3.800	-0.870	83.289	1.00	41.39
9582	CE2	PHE	B	435	-2.883	-1.889	83.177	1.00	42.17
9583	CD2	PHE	B	435	-3.273	-3.197	83.434	1.00	41.94
9584	C	PHE	B	435	-5.458	-7.119	83.137	1.00	41.74
9585	O	PHE	B	435	-6.432	-7.728	83.595	1.00	41.77
9586	N	SER	B	436	-4.301	-7.691	82.836	1.00	42.94
9587	CA	SER	B	436	-4.026	-9.085	83.112	1.00	44.64
9588	CB	SER	B	436	-2.789	-9.541	82.334	1.00	44.86
9589	OG	SER	B	436	-1.630	-8.835	82.763	1.00	44.90
9590	C	SER	B	436	-3.757	-9.218	84.600	1.00	45.60
9591	O	SER	B	436	-3.373	-8.250	85.260	1.00	45.77
9592	N	LYS	B	437	-3.928	-10.429	85.112	1.00	46.66
9593	CA	LYS	B	437	-3.755	-10.726	86.533	1.00	48.13
9594	CB	LYS	B	437	-3.491	-12.223	86.714	1.00	48.28
9595	CG	LYS	B	437	-3.311	-12.681	88.151	1.00	50.57
9596	CD	LYS	B	437	-3.547	-14.195	88.281	1.00	52.46
9597	CE	LYS	B	437	-2.772	-14.796	89.461	1.00	54.80
9598	NZ	LYS	B	437	-1.407	-15.274	89.067	1.00	55.25
9599	C	LYS	B	437	-2.720	-9.873	87.295	1.00	48.47
9600	O	LYS	B	437	-2.975	-9.483	88.435	1.00	48.75
9601	N	GLU	B	438	-1.571	-9.576	86.685	1.00	48.91
9602	CA	GLU	B	438	-0.564	-8.733	87.342	1.00	49.40
9603	CB	GLU	B	438	0.713	-9.513	87.677	1.00	50.14
9604	CG	GLU	B	438	0.969	-9.700	89.171	1.00	53.11
9605	CD	GLU	B	438	0.538	-11.062	89.687	1.00	57.76
9606	OE1	GLU	B	438	-0.628	-11.447	89.431	1.00	59.42
9607	OE2	GLU	B	438	1.365	-11.747	90.350	1.00	58.90
9608	C	GLU	B	438	-0.218	-7.527	86.489	1.00	48.92
9609	O	GLU	B	438	0.873	-6.972	86.588	1.00	48.64
9610	N	ALA	B	439	-1.154	-7.138	85.632	1.00	48.41
9611	CA	ALA	B	439	-0.976	-5.969	84.791	1.00	47.44
9612	CB	ALA	B	439	-0.928	-4.714	85.638	1.00	47.48
9613	C	ALA	B	439	0.245	-6.057	83.892	1.00	46.91
9614	O	ALA	B	439	0.861	-5.046	83.582	1.00	47.27
9615	N	LYS	B	440	0.599	-7.261	83.467	1.00	46.22
9616	CA	LYS	B	440	1.685	-7.401	82.514	1.00	45.42
9617	CB	LYS	B	440	2.114	-8.865	82.382	1.00	45.72
9618	CG	LYS	B	440	3.629	-9.085	82.271	1.00	48.39
9619	CD	LYS	B	440	4.001	-10.582	82.337	1.00	51.54
9620	CE	LYS	B	440	5.446	-10.819	82.828	1.00	54.11
9621	NZ	LYS	B	440	5.569	-11.261	84.272	1.00	55.44
9622	C	LYS	B	440	1.133	-6.879	81.203	1.00	44.23
9623	O	LYS	B	440	1.822	-6.199	80.446	1.00	44.04
9624	N	TYR	B	441	-0.137	-7.172	80.943	1.00	42.93
9625	CA	TYR	B	441	-0.770	-6.680	79.723	1.00	41.53
9626	CB	TYR	B	441	-1.017	-7.819	78.736	1.00	41.51
9627	CG	TYR	B	441	0.183	-8.690	78.517	1.00	42.29
9628	CD1	TYR	B	441	0.450	-9.747	79.362	1.00	44.21
9629	CE1	TYR	B	441	1.560	-10.548	79.177	1.00	45.77

**REPLACEMENT SHEET**  
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**FIGURE 3 GG**

A	B	C	D	E	F	G	H	I	J
9630	CZ	TYR	B	441	2.410	-10.297	78.129	1.00	45.67
9631	OH	TYR	B	441	3.508	-11.105	77.952	1.00	48.44
9632	CE2	TYR	B	441	2.170	-9.252	77.268	1.00	45.14
9633	CD2	TYR	B	441	1.057	-8.453	77.466	1.00	44.36
9634	C	TYR	B	441	-2.086	-5.999	80.034	1.00	40.43
9635	O	TYR	B	441	-2.644	-6.162	81.116	1.00	39.93
9636	N	TYR	B	442	-2.575	-5.224	79.076	1.00	39.24
9637	CA	TYR	B	442	-3.888	-4.622	79.204	1.00	38.12
9638	CB	TYR	B	442	-3.860	-3.272	79.937	1.00	37.79
9639	CG	TYR	B	442	-3.000	-2.211	79.308	1.00	36.99
9640	CD1	TYR	B	442	-1.625	-2.194	79.505	1.00	37.49
9641	CE1	TYR	B	442	-0.833	-1.212	78.931	1.00	37.66
9642	CZ	TYR	B	442	-1.422	-0.227	78.170	1.00	38.20
9643	OH	TYR	B	442	-0.647	0.754	77.596	1.00	38.96
9644	CE2	TYR	B	442	-2.784	-0.228	77.961	1.00	36.90
9645	CD2	TYR	B	442	-3.560	-1.211	78.537	1.00	36.42
9646	C	TYR	B	442	-4.563	-4.490	77.858	1.00	37.75
9647	O	TYR	B	442	-3.913	-4.278	76.823	1.00	37.67
9648	N	GLN	B	443	-5.878	-4.659	77.874	1.00	36.72
9649	CA	GLN	B	443	-6.651	-4.475	76.672	1.00	36.23
9650	CB	GLN	B	443	-7.711	-5.553	76.518	1.00	36.03
9651	CG	GLN	B	443	-8.658	-5.236	75.375	1.00	35.04
9652	CD	GLN	B	443	-9.951	-5.958	75.506	1.00	34.59
9653	OE1	GLN	B	443	-10.484	-6.080	76.606	1.00	36.36
9654	NE2	GLN	B	443	-10.460	-6.464	74.397	1.00	34.60
9655	C	GLN	B	443	-7.337	-3.127	76.756	1.00	36.34
9656	O	GLN	B	443	-8.010	-2.816	77.743	1.00	35.78
9657	N	LEU	B	444	-7.147	-2.326	75.723	1.00	36.43
9658	CA	LEU	B	444	-7.787	-1.044	75.651	1.00	37.01
9659	CB	LEU	B	444	-6.858	-0.040	75.005	1.00	37.61
9660	CG	LEU	B	444	-6.263	1.006	75.933	1.00	38.23
9661	CD1	LEU	B	444	-6.423	0.575	77.361	1.00	38.86
9662	CD2	LEU	B	444	-4.808	1.225	75.567	1.00	38.29
9663	C	LEU	B	444	-9.023	-1.169	74.802	1.00	37.52
9664	O	LEU	B	444	-9.020	-1.861	73.777	1.00	37.47
9665	N	ARG	B	445	-10.074	-0.480	75.223	1.00	37.73
9666	CA	ARG	B	445	-11.310	-0.474	74.482	1.00	38.31
9667	CB	ARG	B	445	-12.346	-1.350	75.178	1.00	38.87
9668	CG	ARG	B	445	-13.533	-1.688	74.303	1.00	42.76
9669	CD	ARG	B	445	-14.843	-1.000	74.669	1.00	47.80
9670	NE	ARG	B	445	-15.287	-1.361	76.013	1.00	51.94
9671	CZ	ARG	B	445	-16.556	-1.532	76.353	1.00	54.29
9672	NH1	ARG	B	445	-16.873	-1.853	77.599	1.00	54.15
9673	NH2	ARG	B	445	-17.511	-1.384	75.440	1.00	56.63
9674	C	ARG	B	445	-11.835	0.939	74.338	1.00	37.77
9675	O	ARG	B	445	-12.249	1.556	75.312	1.00	37.63
9676	N	CYS	B	446	-11.790	1.470	73.128	1.00	37.48
9677	CA	CYS	B	446	-12.403	2.759	72.914	1.00	37.98
9678	CB	CYS	B	446	-11.512	3.700	72.094	1.00	38.50
9679	SG	CYS	B	446	-11.923	3.914	70.361	1.00	39.17
9680	C	CYS	B	446	-13.755	2.520	72.262	1.00	37.44

**REPLACEMENT SHEET**  
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**FIGURE 3 GH**

A	B	C	D	E	F	G	H	I	J
9681	O	CYS	B	446	-13.878	1.724	71.325	1.00	37.58
9682	N	SER	B	447	-14.770	3.181	72.801	1.00	36.87
9683	CA	SER	B	447	-16.121	3.056	72.295	1.00	36.06
9684	CB	SER	B	447	-17.122	2.929	73.438	1.00	36.12
9685	OG	SER	B	447	-16.507	2.481	74.615	1.00	37.23
9686	C	SER	B	447	-16.522	4.275	71.515	1.00	35.55
9687	O	SER	B	447	-17.706	4.497	71.328	1.00	36.20
9688	N	GLY	B	448	-15.581	5.099	71.087	1.00	35.02
9689	CA	GLY	B	448	-15.976	6.242	70.284	1.00	35.18
9690	C	GLY	B	448	-14.985	7.371	70.326	1.00	35.66
9691	O	GLY	B	448	-14.066	7.358	71.159	1.00	35.53
9692	N	PRO	B	449	-15.225	8.399	69.513	1.00	35.54
9693	CA	PRO	B	449	-16.452	8.519	68.730	1.00	36.01
9694	CB	PRO	B	449	-16.529	10.019	68.437	1.00	35.79
9695	CG	PRO	B	449	-15.303	10.613	69.029	1.00	35.21
9696	CD	PRO	B	449	-14.330	9.538	69.289	1.00	35.44
9697	C	PRO	B	449	-16.445	7.763	67.420	1.00	36.31
9698	O	PRO	B	449	-17.496	7.669	66.801	1.00	36.67
9699	N	GLY	B	450	-15.291	7.273	66.985	1.00	36.24
9700	CA	GLY	B	450	-15.233	6.492	65.763	1.00	35.98
9701	C	GLY	B	450	-15.727	5.092	66.085	1.00	35.94
9702	O	GLY	B	450	-16.284	4.881	67.157	1.00	35.95
9703	N	LEU	B	451	-15.508	4.134	65.187	1.00	35.82
9704	CA	LEU	B	451	-15.958	2.775	65.409	1.00	35.69
9705	CB	LEU	B	451	-15.798	1.942	64.138	1.00	35.37
9706	CG	LEU	B	451	-16.637	2.364	62.934	1.00	36.88
9707	CD1	LEU	B	451	-18.043	2.722	63.371	1.00	39.09
9708	CD2	LEU	B	451	-16.684	1.242	61.902	1.00	36.51
9709	C	LEU	B	451	-15.163	2.145	66.532	1.00	35.78
9710	O	LEU	B	451	-13.961	2.287	66.602	1.00	35.77
9711	N	PRO	B	452	-15.841	1.442	67.418	1.00	36.02
9712	CA	PRO	B	452	-15.164	0.787	68.530	1.00	36.49
9713	CB	PRO	B	452	-16.214	-0.211	69.018	1.00	36.60
9714	CG	PRO	B	452	-17.502	0.466	68.737	1.00	36.28
9715	CD	PRO	B	452	-17.298	1.227	67.442	1.00	35.76
9716	C	PRO	B	452	-13.907	0.071	68.048	1.00	36.91
9717	O	PRO	B	452	-13.890	-0.497	66.961	1.00	37.14
9718	N	LEU	B	453	-12.861	0.103	68.860	1.00	37.38
9719	CA	LEU	B	453	-11.595	-0.518	68.509	1.00	37.79
9720	CB	LEU	B	453	-10.662	0.548	67.909	1.00	38.09
9721	CG	LEU	B	453	-9.130	0.424	67.895	1.00	39.23
9722	CD1	LEU	B	453	-8.581	0.806	69.245	1.00	41.73
9723	CD2	LEU	B	453	-8.527	1.356	66.877	1.00	38.74
9724	C	LEU	B	453	-11.009	-1.163	69.761	1.00	37.97
9725	O	LEU	B	453	-10.954	-0.529	70.810	1.00	38.14
9726	N	TYR	B	454	-10.614	-2.431	69.664	1.00	38.19
9727	CA	TYR	B	454	-10.018	-3.156	70.792	1.00	38.49
9728	CB	TYR	B	454	-10.786	-4.451	71.099	1.00	38.13
9729	CG	TYR	B	454	-12.241	-4.232	71.417	1.00	38.60
9730	CD1	TYR	B	454	-12.725	-4.381	72.711	1.00	38.94
9731	CE1	TYR	B	454	-14.068	-4.170	73.001	1.00	37.86

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**FIGURE 3 GI**

A	B	C	D	E	F	G	H	I	J
9732	CZ	TYR	B	454	-14.920	-3.799	71.988	1.00	39.51
9733	OH	TYR	B	454	-16.261	-3.584	72.236	1.00	40.91
9734	CE2	TYR	B	454	-14.452	-3.651	70.698	1.00	39.29
9735	CD2	TYR	B	454	-13.135	-3.864	70.422	1.00	38.35
9736	C	TYR	B	454	-8.543	-3.484	70.539	1.00	38.72
9737	O	TYR	B	454	-8.198	-4.055	69.504	1.00	38.95
9738	N	THR	B	455	-7.680	-3.133	71.488	1.00	38.84
9739	CA	THR	B	455	-6.247	-3.378	71.332	1.00	38.93
9740	CB	THR	B	455	-5.498	-2.084	71.007	1.00	38.87
9741	OG1	THR	B	455	-5.832	-1.074	71.970	1.00	38.92
9742	CG2	THR	B	455	-5.949	-1.515	69.675	1.00	38.16
9743	C	THR	B	455	-5.612	-4.010	72.552	1.00	39.32
9744	O	THR	B	455	-6.117	-3.875	73.669	1.00	39.52
9745	N	LEU	B	456	-4.499	-4.703	72.326	1.00	39.79
9746	CA	LEU	B	456	-3.757	-5.353	73.399	1.00	40.44
9747	CB	LEU	B	456	-3.461	-6.798	73.042	1.00	40.42
9748	CG	LEU	B	456	-3.668	-7.892	74.030	1.00	42.00
9749	CD1	LEU	B	456	-2.769	-8.937	74.072	1.00	42.32
9750	CD2	LEU	B	456	-4.161	-7.367	75.430	1.00	42.07
9751	C	LEU	B	456	-2.443	-4.600	73.573	1.00	40.92
9752	O	LEU	B	456	-1.850	-4.143	72.590	1.00	41.11
9753	N	HIS	B	457	-1.989	-4.467	74.814	1.00	41.21
9754	CA	HIS	B	457	-0.764	-3.742	75.089	1.00	41.70
9755	CB	HIS	B	457	-1.076	-2.289	75.445	1.00	41.48
9756	CG	HIS	B	457	-2.119	-1.676	74.576	1.00	39.95
9757	ND1	HIS	B	457	-1.832	-0.706	73.645	1.00	38.88
9758	CE1	HIS	B	457	-2.941	-0.363	73.016	1.00	38.91
9759	NE2	HIS	B	457	-3.938	-1.077	73.509	1.00	37.88
9760	CD2	HIS	B	457	-3.449	-1.910	74.482	1.00	38.62
9761	C	HIS	B	457	-0.015	-4.360	76.244	1.00	42.55
9762	O	HIS	B	457	-0.616	-4.954	77.146	1.00	42.69
9763	N	SER	B	458	1.304	-4.206	76.232	1.00	43.43
9764	CA	SER	B	458	2.094	-4.676	77.356	1.00	44.71
9765	CB	SER	B	458	3.357	-5.398	76.897	1.00	44.67
9766	OG	SER	B	458	4.135	-4.566	76.061	1.00	45.67
9767	C	SER	B	458	2.424	-3.460	78.205	1.00	45.51
9768	O	SER	B	458	2.696	-2.379	77.682	1.00	44.86
9769	N	SER	B	459	2.395	-3.636	79.520	1.00	46.90
9770	CA	SER	B	459	2.622	-2.509	80.408	1.00	48.50
9771	CB	SER	B	459	1.924	-2.735	81.747	1.00	48.28
9772	OG	SER	B	459	2.207	-4.021	82.264	1.00	49.98
9773	C	SER	B	459	4.100	-2.126	80.590	1.00	49.47
9774	O	SER	B	459	4.407	-1.007	80.992	1.00	49.61
9775	N	VAL	B	460	5.011	-3.035	80.255	1.00	50.94
9776	CA	VAL	B	460	6.439	-2.775	80.445	1.00	51.98
9777	CB	VAL	B	460	7.315	-3.923	79.914	1.00	52.10
9778	CG1	VAL	B	460	8.782	-3.620	80.154	1.00	52.94
9779	CG2	VAL	B	460	6.938	-5.221	80.594	1.00	52.80
9780	C	VAL	B	460	6.874	-1.456	79.829	1.00	52.32
9781	O	VAL	B	460	7.412	-0.595	80.518	1.00	52.84
9782	N	ASN	B	461	6.655	-1.294	78.534	1.00	52.98

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**FIGURE 3 GJ**

A	B	C	D	E	F	G	H	I	J
9783	CA	ASN	B	461	7.001	-0.038	77.875	1.00	53.52
9784	CB	ASN	B	461	8.271	-0.176	77.034	1.00	53.99
9785	CG	ASN	B	461	9.539	0.100	77.842	1.00	55.10
9786	OD1	ASN	B	461	9.873	1.259	78.116	1.00	55.97
9787	ND2	ASN	B	461	10.246	-0.963	78.230	1.00	55.66
9788	C	ASN	B	461	5.839	0.487	77.052	1.00	53.51
9789	O	ASN	B	461	6.019	1.187	76.053	1.00	53.38
9790	N	ASP	B	462	4.641	0.127	77.502	1.00	53.66
9791	CA	ASP	B	462	3.388	0.542	76.880	1.00	53.73
9792	CB	ASP	B	462	2.902	1.862	77.479	1.00	53.78
9793	CG	ASP	B	462	2.632	1.752	78.955	1.00	54.43
9794	OD1	ASP	B	462	3.211	2.549	79.731	1.00	55.45
9795	OD2	ASP	B	462	1.863	0.890	79.431	1.00	54.43
9796	C	ASP	B	462	3.438	0.648	75.368	1.00	53.40
9797	O	ASP	B	462	3.141	1.703	74.811	1.00	53.36
9798	N	LYS	B	463	3.816	-0.436	74.702	1.00	52.90
9799	CA	LYS	B	463	3.768	-0.435	73.251	1.00	52.73
9800	CB	LYS	B	463	5.080	-0.926	72.633	1.00	53.15
9801	CG	LYS	B	463	5.195	-2.435	72.468	1.00	53.06
9802	CD	LYS	B	463	6.260	-2.758	71.435	1.00	57.55
9803	CE	LYS	B	463	5.943	-4.039	70.664	1.00	59.47
9804	NZ	LYS	B	463	6.763	-4.144	69.409	1.00	59.87
9805	C	LYS	B	463	2.573	-1.270	72.787	1.00	51.90
9806	O	LYS	B	463	2.077	-2.139	73.507	1.00	51.86
9807	N	GLY	B	464	2.091	-0.985	71.591	1.00	50.93
9808	CA	GLY	B	464	0.976	-1.733	71.063	1.00	49.76
9809	C	GLY	B	464	1.427	-3.098	70.591	1.00	48.51
9810	O	GLY	B	464	2.409	-3.214	69.874	1.00	48.50
9811	N	LEU	B	465	0.729	-4.140	71.016	1.00	47.52
9812	CA	LEU	B	465	1.030	-5.469	70.523	1.00	46.73
9813	CB	LEU	B	465	0.649	-6.530	71.555	1.00	46.55
9814	CG	LEU	B	465	1.474	-6.509	72.848	1.00	46.30
9815	CD1	LEU	B	465	0.704	-7.128	73.979	1.00	43.80
9816	CD2	LEU	B	465	2.822	-7.213	72.666	1.00	45.01
9817	C	LEU	B	465	0.258	-5.683	69.222	1.00	46.37
9818	O	LEU	B	465	0.848	-5.950	68.169	1.00	46.31
9819	N	ARG	B	466	-1.062	-5.521	69.289	1.00	45.36
9820	CA	ARG	B	466	-1.897	-5.788	68.128	1.00	44.30
9821	CB	ARG	B	466	-1.915	-7.287	67.854	1.00	44.34
9822	CG	ARG	B	466	-2.567	-8.082	68.969	1.00	44.74
9823	CD	ARG	B	466	-2.273	-9.569	68.931	1.00	44.86
9824	NE	ARG	B	466	-0.847	-9.831	69.115	1.00	44.16
9825	CZ	ARG	B	466	-0.291	-10.154	70.271	1.00	44.48
9826	NH1	ARG	B	466	1.017	-10.375	70.344	1.00	44.39
9827	NH2	ARG	B	466	-1.041	-10.261	71.361	1.00	45.27
9828	C	ARG	B	466	-3.340	-5.332	68.252	1.00	43.59
9829	O	ARG	B	466	-3.863	-5.072	69.338	1.00	43.21
9830	N	VAL	B	467	-3.980	-5.268	67.097	1.00	42.75
9831	CA	VAL	B	467	-5.369	-4.922	67.005	1.00	41.90
9832	CB	VAL	B	467	-5.664	-4.313	65.637	1.00	42.12
9833	CG1	VAL	B	467	-7.081	-3.744	65.597	1.00	42.48

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**FIGURE 3 GK**

A	B	C	D	E	F	G	H	I	J
9834	CG2	VAL	B	467	-4.650	-3.202	65.333	1.00	42.81
9835	C	VAL	B	467	-6.170	-6.201	67.196	1.00	41.22
9836	O	VAL	B	467	-6.039	-7.142	66.417	1.00	41.01
9837	N	LEU	B	468	-6.982	-6.243	68.246	1.00	40.12
9838	CA	LEU	B	468	-7.828	-7.399	68.505	1.00	39.35
9839	CB	LEU	B	468	-8.260	-7.431	69.972	1.00	39.22
9840	CG	LEU	B	468	-7.149	-7.616	71.012	1.00	39.50
9841	CD1	LEU	B	468	-7.722	-7.565	72.418	1.00	39.92
9842	CD2	LEU	B	468	-6.424	-8.935	70.794	1.00	39.93
9843	C	LEU	B	468	-9.067	-7.355	67.616	1.00	38.66
9844	O	LEU	B	468	-9.380	-8.299	66.893	1.00	38.22
9845	N	GLO	B	469	-9.776	-6.240	67.678	1.00	38.22
9846	CA	GLU	B	469	-11.001	-6.078	66.908	1.00	37.30
9847	CB	GLU	B	469	-12.214	-6.450	67.742	1.00	37.22
9848	CG	GLO	B	469	-13.526	-6.249	67.005	1.00	37.38
9849	CD	GLU	B	469	-13.602	-7.106	65.761	1.00	37.88
9850	OE1	GLU	B	469	-13.746	-6.562	64.643	1.00	34.63
9851	OE2	GLU	B	469	-13.507	-8.340	65.913	1.00	39.57
9852	C	GLU	B	469	-11.111	-4.642	66.478	1.00	36.92
9853	O	GLU	B	469	-11.158	-3.739	67.311	1.00	36.60
9854	N	ASP	B	470	-11.151	-4.428	65.173	1.00	36.62
9855	CA	ASP	B	470	-11.196	-3.073	64.657	1.00	36.74
9856	CB	ASP	B	470	-10.052	-2.824	63.674	1.00	36.90
9857	CG	ASP	B	470	-10.163	-3.682	62.436	1.00	39.20
9858	OD1	ASP	B	470	-9.253	-3.593	61.570	1.00	41.35
9859	OD2	ASP	B	470	-11.124	-4.474	62.251	1.00	38.62
9860	C	ASP	B	470	-12.516	-2.688	64.001	1.00	36.27
9861	O	ASP	B	470	-12.692	-1.535	63.617	1.00	36.08
9862	N	ASN	B	471	-13.432	-3.636	63.851	1.00	35.57
9863	CA	ASN	B	471	-14.730	-3.329	63.260	1.00	34.94
9864	CB	ASN	B	471	-15.398	-2.204	64.052	1.00	34.49
9865	CG	ASN	B	471	-16.283	-2.724	65.145	1.00	34.14
9866	OD1	ASN	B	471	-17.202	-3.497	64.874	1.00	33.71
9867	ND2	ASN	B	471	-15.998	-2.349	66.392	1.00	33.93
9868	C	ASN	B	471	-14.664	-2.921	61.793	1.00	35.06
9869	O	ASN	B	471	-15.390	-2.014	61.353	1.00	34.47
9870	N	SER	B	472	-13.787	-3.559	61.024	1.00	34.95
9871	CA	SER	B	472	-13.676	-3.163	59.634	1.00	34.75
9872	CB	SER	B	472	-12.326	-3.557	59.016	1.00	34.94
9873	OG	SER	B	472	-12.115	-4.949	59.129	1.00	38.29
9874	C	SER	B	472	-14.866	-3.691	58.856	1.00	33.94
9875	O	SER	B	472	-15.292	-3.077	57.880	1.00	33.88
9876	N	ALA	B	473	-15.434	-4.809	59.304	1.00	33.57
9877	CA	ALA	B	473	-16.598	-5.340	58.613	1.00	33.41
9878	CB	ALA	B	473	-17.064	-6.637	59.228	1.00	33.35
9879	C	ALA	B	473	-17.718	-4.301	58.636	1.00	33.49
9880	O	ALA	B	473	-18.344	-4.025	57.615	1.00	32.91
9881	N	LEU	B	474	-17.953	-3.720	59.805	1.00	33.55
9882	CA	LEU	B	474	-19.018	-2.745	59.955	1.00	33.99
9883	CB	LEU	B	474	-19.268	-2.456	61.428	1.00	34.22
9884	CG	LEU	B	474	-20.243	-1.312	61.748	1.00	35.30

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**FIGURE 3 GL**

A	B	C	D	E	F	G	H	I	J
9885	CD1	LEU	B	474	-21.642	-1.617	61.238	1.00	34.21
9886	CD2	LEU	B	474	-20.264	-1.083	63.245	1.00	34.84
9887	C	LEU	B	474	-18.651	-1.475	59.223	1.00	33.97
9888	O	LEU	B	474	-19.490	-0.847	58.599	1.00	33.99
9889	N	ASP	B	475	-17.381	-1.110	59.286	1.00	34.46
9890	CA	ASP	B	475	-16.914	0.051	58.566	1.00	35.26
9891	CB	ASP	B	475	-15.419	0.234	58.764	1.00	34.89
9892	CG	ASP	B	475	-14.904	1.486	58.114	1.00	34.68
9893	OD1	ASP	B	475	-14.294	1.378	57.024	1.00	36.50
9894	OD2	ASP	B	475	-15.073	2.621	58.605	1.00	33.48
9895	C	ASP	B	475	-17.235	-0.155	57.100	1.00	36.26
9896	O	ASP	B	475	-17.695	0.760	56.422	1.00	36.57
9897	N	LYS	B	476	-17.009	-1.373	56.619	1.00	37.51
9898	CA	LYS	B	476	-17.307	-1.702	55.235	1.00	38.64
9899	CB	LYS	B	476	-16.864	-3.133	54.895	1.00	39.35
9900	CG	LYS	B	476	-16.867	-3.452	53.387	1.00	42.66
9901	CD	LYS	B	476	-16.549	-4.930	53.071	1.00	46.42
9902	CE	LYS	B	476	-15.146	-5.353	53.556	1.00	49.78
9903	NZ	LYS	B	476	-14.011	-5.112	52.586	1.00	50.22
9904	C	LYS	B	476	-18.785	-1.515	54.913	1.00	38.54
9905	O	LYS	B	476	-19.136	-0.832	53.950	1.00	38.36
9906	N	MET	B	477	-19.682	-2.082	55.705	1.00	38.82
9907	CA	MET	B	477	-21.081	-1.959	55.285	1.00	39.10
9908	CB	MET	B	477	-21.981	-3.097	55.807	1.00	39.28
9909	CG	MET	B	477	-21.886	-3.480	57.261	1.00	41.02
9910	SD	MET	B	477	-23.103	-4.821	57.689	1.00	46.02
9911	CE	MET	B	477	-24.462	-4.449	56.569	1.00	44.10
9912	C	MET	B	477	-21.666	-0.546	55.451	1.00	39.01
9913	O	MET	B	477	-22.680	-0.194	54.852	1.00	38.91
9914	N	LEU	B	478	-20.965	0.287	56.207	1.00	39.11
9915	CA	LEU	B	478	-21.407	1.642	56.466	1.00	38.82
9916	CB	LEU	B	478	-20.855	2.085	57.823	1.00	38.62
9917	CG	LEU	B	478	-21.755	2.331	59.045	1.00	38.51
9918	CD1	LEU	B	478	-20.964	2.105	60.317	1.00	37.08
9919	CD2	LEU	B	478	-23.047	1.502	59.055	1.00	35.88
9920	C	LEU	B	478	-21.008	2.678	55.408	1.00	39.38
9921	O	LEU	B	478	-21.552	3.785	55.413	1.00	38.90
9922	N	GLN	B	479	-20.090	2.358	54.492	1.00	39.91
9923	CA	GLN	B	479	-19.596	3.450	53.631	1.00	40.99
9924	CB	GLN	B	479	-18.147	3.261	53.104	1.00	42.19
9925	CG	GLN	B	479	-17.943	2.372	51.893	1.00	44.87
9926	CD	GLN	B	479	-17.624	0.962	52.297	1.00	47.18
9927	OE1	GLN	B	479	-16.774	0.305	51.699	1.00	46.75
9928	NE2	GLN	B	479	-18.309	0.487	53.326	1.00	50.12
9929	C	GLN	B	479	-20.543	4.123	52.618	1.00	40.45
9930	O	GLN	B	479	-20.297	5.250	52.195	1.00	40.42
9931	N	ASN	B	480	-21.628	3.450	52.257	1.00	39.75
9932	CA	ASN	B	480	-22.617	4.071	51.395	1.00	39.17
9933	CB	ASN	B	480	-22.810	3.303	50.079	1.00	39.07
9934	CG	ASN	B	480	-23.369	1.934	50.283	1.00	38.34
9935	OD1	ASN	B	480	-23.675	1.532	51.405	1.00	39.33



**REPLACEMENT SHEET**  
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**FIGURE 3 GM**

A	B	C	D	E	F	G	H	I	J
9936	ND2	ASN	B	480	-23.562	1.197	49.195	1.00	37.35
9937	C	ASN	B	480	-23.952	4.292	52.122	1.00	38.84
9938	O	ASN	B	480	-25.018	4.289	51.492	1.00	38.34
9939	N	VAL	B	481	-23.884	4.458	53.445	1.00	37.77
9940	CA	VAL	B	481	-25.073	4.817	54.206	1.00	37.02
9941	CB	VAL	B	481	-25.599	3.678	55.168	1.00	37.04
9942	CG1	VAL	B	481	-24.615	2.580	55.334	1.00	36.01
9943	CG2	VAL	B	481	-26.077	4.215	56.508	1.00	36.67
9944	C	VAL	B	481	-24.946	6.178	54.875	1.00	36.63
9945	O	VAL	B	481	-23.948	6.503	55.486	1.00	36.05
9946	N	GLN	B	482	-25.978	6.987	54.718	1.00	36.78
9947	CA	GLN	B	482	-25.988	8.333	55.258	1.00	36.69
9948	CB	GLN	B	482	-27.107	9.136	54.611	1.00	36.71
9949	CG	GLN	B	482	-26.914	9.252	53.108	1.00	38.91
9950	CD	GLN	B	482	-28.133	9.801	52.401	1.00	40.62
9951	OE1	GLN	B	482	-28.209	11.003	52.113	1.00	40.56
9952	NE2	GLN	B	482	-29.095	8.929	52.125	1.00	40.90
9953	C	GLN	B	482	-26.137	8.298	56.763	1.00	36.68
9954	O	GLN	B	482	-27.238	8.346	57.293	1.00	36.60
9955	N	MET	B	483	-25.008	8.205	57.451	1.00	36.67
9956	CA	MET	B	483	-25.026	8.136	58.892	1.00	36.98
9957	CB	MET	B	483	-23.818	7.349	59.397	1.00	36.93
9958	CG	MET	B	483	-23.898	5.889	59.020	1.00	37.27
9959	SD	MET	B	483	-25.324	5.098	59.799	1.00	39.21
9960	CE	MET	B	483	-24.718	5.123	61.489	1.00	37.40
9961	C	MET	B	483	-25.048	9.517	59.487	1.00	37.15
9962	O	MET	B	483	-24.606	10.476	58.881	1.00	37.52
9963	N	PRO	B	484	-25.605	9.631	60.677	1.00	37.78
9964	CA	PRO	B	484	-25.653	10.925	61.363	1.00	37.84
9965	CB	PRO	B	484	-26.616	10.652	62.510	1.00	37.77
9966	CG	PRO	B	484	-26.409	9.174	62.777	1.00	37.96
9967	CD	PRO	B	484	-26.285	8.558	61.429	1.00	37.09
9968	C	PRO	B	484	-24.281	11.285	61.920	1.00	37.92
9969	O	PRO	B	484	-23.396	10.446	61.933	1.00	38.22
9970	N	SER	B	485	-24.099	12.517	62.378	1.00	38.27
9971	CA	SER	B	485	-22.843	12.863	63.023	1.00	38.32
9972	CB	SER	B	485	-22.113	13.991	62.285	1.00	38.62
9973	OG	SER	B	485	-22.789	15.229	62.422	1.00	38.59
9974	C	SER	B	485	-23.140	13.254	64.449	1.00	38.06
9975	O	SER	B	485	-24.299	13.373	64.844	1.00	38.12
9976	N	LYS	B	486	-22.094	13.397	65.242	1.00	38.14
9977	CA	LYS	B	486	-22.291	13.834	66.598	1.00	37.92
9978	CB	LYS	B	486	-21.904	12.788	67.589	1.00	37.32
9979	CG	LYS	B	486	-22.295	13.064	68.988	1.00	36.10
9980	CD	LYS	B	486	-21.626	12.167	69.984	1.00	35.39
9981	CE	LYS	B	486	-22.623	11.437	70.825	1.00	33.81
9982	NZ	LYS	B	486	-21.933	10.471	71.696	1.00	31.22
9983	C	LYS	B	486	-21.549	15.125	66.827	1.00	38.55
9984	O	LYS	B	486	-20.406	15.277	66.404	1.00	38.40
9985	N	LYS	B	487	-22.213	16.080	67.460	1.00	39.41
9986	CA	LYS	B	487	-21.515	17.277	67.882	1.00	40.37

**REPLACEMENT SHEET**  
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**FIGURE 3 GN**

A	B	C	D	E	F	G	H	I	J
9987	CB	LYS	B	487	-22.202	18.552	67.416	1.00	40.73
9988	CG	LYS	B	487	-21.733	19.785	68.194	1.00	42.32
9989	CD	LYS	B	487	-21.414	20.922	67.260	1.00	45.83
9990	CE	LYS	B	487	-21.483	22.276	67.946	1.00	48.42
9991	NZ	LYS	B	487	-21.094	23.380	67.002	1.00	49.56
9992	C	LYS	B	487	-21.461	17.245	69.385	1.00	40.25
9993	O	LYS	B	487	-22.481	17.046	70.034	1.00	40.45
9994	N	LEU	B	488	-20.262	17.395	69.931	1.00	40.48
9995	CA	LEU	B	488	-20.063	17.425	71.371	1.00	40.70
9996	CB	LEU	B	488	-19.056	16.371	71.791	1.00	40.34
9997	CG	LEU	B	488	-19.267	15.608	73.101	1.00	40.39
9998	CD1	LEU	B	488	-17.932	15.099	73.580	1.00	38.50
9999	CD2	LEU	B	488	-19.939	16.422	74.200	1.00	38.59
10000	C	LEU	B	488	-19.501	18.807	71.635	1.00	41.34
10001	O	LEU	B	488	-18.436	19.152	71.134	1.00	41.42
10002	N	ASP	B	489	-20.234	19.602	72.400	1.00	42.14
10003	CA	ASP	B	489	-19.851	20.970	72.681	1.00	42.96
10004	CB	ASP	B	489	-20.318	21.886	71.555	1.00	43.27
10005	CG	ASP	B	489	-19.303	22.972	71.216	1.00	45.38
10006	OD1	ASP	B	489	-18.123	22.647	70.974	1.00	47.86
10007	OD2	ASP	B	489	-19.597	24.181	71.142	1.00	48.46
10008	C	ASP	B	489	-20.491	21.382	74.001	1.00	43.31
10009	O	ASP	B	489	-21.108	20.563	74.682	1.00	43.06
10010	N	PHE	B	490	-20.347	22.650	74.359	1.00	43.92
10011	CA	PHE	B	490	-20.862	23.128	75.627	1.00	44.57
10012	CB	PHE	B	490	-19.730	23.186	76.655	1.00	44.71
10013	CG	PHE	B	490	-18.628	24.148	76.295	1.00	45.17
10014	CD1	PHE	B	490	-18.728	25.493	76.610	1.00	45.54
10015	CE1	PHE	B	490	-17.717	26.378	76.276	1.00	46.24
10016	CZ	PHE	B	490	-16.592	25.925	75.610	1.00	46.81
10017	CE2	PHE	B	490	-16.480	24.588	75.279	1.00	46.81
10018	CD2	PHE	B	490	-17.496	23.706	75.623	1.00	46.16
10019	C	PHE	B	490	-21.491	24.505	75.500	1.00	45.08
10020	O	PHE	B	490	-21.269	25.211	74.516	1.00	44.51
10021	N	ILE	B	491	-22.308	24.862	76.487	1.00	45.90
10022	CA	ILE	B	491	-22.814	26.224	76.601	1.00	47.24
10023	CB	ILE	B	491	-24.325	26.364	76.291	1.00	47.15
10024	CG1	ILE	B	491	-25.148	25.408	77.147	1.00	47.50
10025	CD1	ILE	B	491	-26.606	25.519	76.910	1.00	48.34
10026	CG2	ILE	B	491	-24.606	26.135	74.806	1.00	47.94
10027	C	ILE	B	491	-22.512	26.699	78.008	1.00	48.15
10028	O	ILE	B	491	-22.203	25.899	78.893	1.00	47.96
10029	N	ILE	B	492	-22.580	28.013	78.191	1.00	49.85
10030	CA	ILE	B	492	-22.314	28.653	79.468	1.00	50.95
10031	CB	ILE	B	492	-21.274	29.775	79.286	1.00	51.11
10032	CG1	ILE	B	492	-20.066	29.250	78.507	1.00	51.12
10033	CD1	ILE	B	492	-18.792	30.041	78.745	1.00	52.47
10034	CG2	ILE	B	492	-20.844	30.363	80.648	1.00	51.24
10035	C	ILE	B	492	-23.622	29.220	79.971	1.00	51.58
10036	O	ILE	B	492	-24.331	29.896	79.235	1.00	52.23
10037	N	LEU	B	493	-23.962	28.943	81.219	1.00	52.29

**REPLACEMENT SHEET**  
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**FIGURE 3 GO**

A	B	C	D	E	F	G	H	I	J
10038	CA	LEU	B	493	-25.233	29.413	81.737	1.00	52.84
10039	CB	LEU	B	493	-26.069	28.229	82.221	1.00	52.51
10040	CG	LEU	B	493	-27.200	27.831	81.266	1.00	52.66
10041	CD1	LEU	B	493	-27.650	26.412	81.500	1.00	49.42
10042	CD2	LEU	B	493	-26.803	28.028	79.806	1.00	53.67
10043	C	LEU	B	493	-25.098	30.481	82.828	1.00	53.43
10044	O	LEU	B	493	-25.801	31.503	82.822	1.00	53.94
10045	N	ASN	B	494	-24.172	30.261	83.745	1.00	53.60
10046	CA	ASN	B	494	-24.003	31.154	84.875	1.00	53.59
10047	CB	ASN	B	494	-24.875	30.649	86.023	1.00	53.96
10048	CG	ASN	B	494	-25.182	31.711	87.060	1.00	55.31
10049	OD1	ASN	B	494	-26.350	31.975	87.354	1.00	57.50
10050	ND2	ASN	B	494	-24.143	32.297	87.649	1.00	55.83
10051	C	ASN	B	494	-22.545	31.072	85.254	1.00	53.34
10052	O	ASN	B	494	-22.205	30.710	86.373	1.00	53.44
10053	N	GLU	B	495	-21.678	31.370	84.294	1.00	53.22
10054	CA	GLU	B	495	-20.240	31.296	84.519	1.00	53.15
10055	CB	GLU	B	495	-19.865	32.021	85.817	1.00	53.73
10056	CG	GLU	B	495	-19.640	33.515	85.586	1.00	56.37
10057	CD	GLU	B	495	-20.186	34.399	86.692	1.00	59.67
10058	OE1	GLU	B	495	-21.297	34.110	87.211	1.00	61.56
10059	OE2	GLU	B	495	-19.507	35.399	87.023	1.00	60.11
10060	C	GLU	B	495	-19.684	29.864	84.461	1.00	52.30
10061	O	GLU	B	495	-18.467	29.658	84.522	1.00	52.40
10062	N	THR	B	496	-20.574	28.884	84.304	1.00	50.82
10063	CA	THR	B	496	-20.168	27.480	84.229	1.00	49.32
10064	CB	THR	B	496	-20.859	26.684	85.331	1.00	49.61
10065	OG1	THR	B	496	-22.249	27.008	85.319	1.00	51.05
10066	CG2	THR	B	496	-20.425	27.182	86.702	1.00	50.12
10067	C	THR	B	496	-20.488	26.845	82.882	1.00	47.62
10068	O	THR	B	496	-21.502	27.161	82.258	1.00	47.49
10069	N	LYS	B	497	-19.609	25.954	82.438	1.00	45.55
10070	CA	LYS	B	497	-19.807	25.223	81.198	1.00	43.78
10071	CB	LYS	B	497	-18.479	24.646	80.715	1.00	44.12
10072	CG	LYS	B	497	-17.656	25.556	79.813	1.00	45.88
10073	CD	LYS	B	497	-16.173	25.423	80.161	1.00	48.55
10074	CE	LYS	B	497	-15.283	25.386	78.934	1.00	50.48
10075	NZ	LYS	B	497	-13.839	25.324	79.336	1.00	52.98
10076	C	LYS	B	497	-20.778	24.064	81.422	1.00	41.98
10077	O	LYS	B	497	-20.770	23.433	82.474	1.00	41.37
10078	N	PHE	B	498	-21.612	23.785	80.431	1.00	40.01
10079	CA	PHE	B	498	-22.533	22.650	80.515	1.00	38.10
10080	CB	PHE	B	498	-23.934	23.108	80.887	1.00	37.53
10081	CG	PHE	B	498	-24.057	23.520	82.322	1.00	35.93
10082	CD1	PHE	B	498	-24.063	22.569	83.326	1.00	34.06
10083	CE1	PHE	B	498	-24.157	22.943	84.646	1.00	33.01
10084	CZ	PHE	B	498	-24.237	24.280	84.980	1.00	31.46
10085	CE2	PHE	B	498	-24.230	25.229	83.986	1.00	32.07
10086	CD2	PHE	B	498	-24.123	24.857	82.672	1.00	33.44
10087	C	PHE	B	498	-22.504	21.958	79.177	1.00	37.48
10088	O	PHE	B	498	-22.656	22.595	78.134	1.00	38.07

**REPLACEMENT SHEET**  
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**FIGURE 3 GP**

A	B	C	D	E	F	G	H	I	J
10089	N	TRP	B	499	-22.289	20.654	79.192	1.00	36.11
10090	CA	TRP	B	499	-22.099	19.941	77.944	1.00	35.50
10091	CB	TRP	B	499	-21.059	18.840	78.145	1.00	35.08
10092	CG	TRP	B	499	-19.720	19.429	78.446	1.00	35.03
10093	CD1	TRP	B	499	-19.285	19.925	79.646	1.00	32.74
10094	NE1	TRP	B	499	-18.009	20.413	79.510	1.00	34.52
10095	CE2	TRP	B	499	-17.598	20.242	78.211	1.00	34.52
10096	CD2	TRP	B	499	-18.655	19.636	77.513	1.00	34.41
10097	CE3	TRP	B	499	-18.481	19.344	76.156	1.00	34.27
10098	CZ3	TRP	B	499	-17.291	19.669	75.554	1.00	35.89
10099	CH2	TRP	B	499	-16.256	20.275	76.277	1.00	35.53
10100	CZ2	TRP	B	499	-16.393	20.567	77.604	1.00	34.90
10101	C	TRP	B	499	-23.376	19.375	77.348	1.00	35.10
10102	O	TRP	B	499	-24.303	19.022	78.059	1.00	34.98
10103	N	TYR	B	500	-23.404	19.278	76.027	1.00	34.63
10104	CA	TYR	B	500	-24.515	18.652	75.356	1.00	34.16
10105	CB	TYR	B	500	-25.501	19.714	74.887	1.00	34.31
10106	CG	TYR	B	500	-24.938	20.604	73.821	1.00	34.73
10107	CD1	TYR	B	500	-25.082	20.289	72.479	1.00	35.98
10108	CE1	TYR	B	500	-24.560	21.113	71.494	1.00	37.75
10109	CZ	TYR	B	500	-23.879	22.261	71.853	1.00	37.36
10110	OH	TYR	B	500	-23.362	23.085	70.876	1.00	40.04
10111	CE2	TYR	B	500	-23.715	22.587	73.171	1.00	36.68
10112	CD2	TYR	B	500	-24.251	21.763	74.152	1.00	36.43
10113	C	TYR	B	500	-23.976	17.918	74.157	1.00	33.95
10114	O	TYR	B	500	-22.852	18.188	73.709	1.00	33.81
10115	N	GLN	B	501	-24.774	16.993	73.637	1.00	33.20
10116	CA	GLN	B	501	-24.457	16.357	72.372	1.00	33.45
10117	CB	GLN	B	501	-23.984	14.895	72.526	1.00	33.76
10118	CG	GLN	B	501	-25.024	13.939	73.127	1.00	33.49
10119	CD	GLN	B	501	-24.548	12.494	73.163	1.00	34.53
10120	OE1	GLN	B	501	-23.433	12.198	73.632	1.00	33.50
10121	NE2	GLN	B	501	-25.388	11.588	72.670	1.00	31.69
10122	C	GLN	B	501	-25.696	16.436	71.492	1.00	33.81
10123	O	GLN	B	501	-26.832	16.526	71.978	1.00	33.93
10124	N	MET	B	502	-25.471	16.441	70.188	1.00	33.70
10125	CA	MET	B	502	-26.562	16.410	69.250	1.00	33.82
10126	CB	MET	B	502	-26.696	17.734	68.516	1.00	33.95
10127	CG	MET	B	502	-27.329	18.801	69.342	1.00	33.05
10128	SD	MET	B	502	-27.201	20.315	68.472	1.00	33.25
10129	CE	MET	B	502	-28.235	21.312	69.478	1.00	30.68
10130	C	MET	B	502	-26.216	15.356	68.261	1.00	33.95
10131	O	MET	B	502	-25.117	15.363	67.716	1.00	34.17
10132	N	ILE	B	503	-27.129	14.419	68.065	1.00	33.81
10133	CA	ILE	B	503	-26.933	13.433	67.031	1.00	33.50
10134	CB	ILE	B	503	-27.669	12.136	67.366	1.00	32.92
10135	CG1	ILE	B	503	-27.106	11.523	68.663	1.00	31.39
10136	CD1	ILE	B	503	-25.613	11.166	68.615	1.00	27.70
10137	CG2	ILE	B	503	-27.564	11.150	66.215	1.00	32.58
10138	C	ILE	B	503	-27.488	14.161	65.824	1.00	34.30
10139	O	ILE	B	503	-28.673	14.513	65.776	1.00	34.09

**REPLACEMENT SHEET**  
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**FIGURE 3GQ**

A	B	C	D	E	F	G	H	I	J
10140	N	LEU	B	504	-26.609	14.440	64.872	1.00	35.45
10141	CA	LEU	B	504	-26.972	15.267	63.726	1.00	36.12
10142	CB	LEU	B	504	-25.885	16.316	63.475	1.00	36.38
10143	CG	LEU	B	504	-25.567	17.341	64.570	1.00	36.67
10144	CD1	LEU	B	504	-24.221	17.993	64.288	1.00	36.93
10145	CD2	LEU	B	504	-26.659	18.404	64.706	1.00	35.45
10146	C	LEU	B	504	-27.216	14.484	62.445	1.00	37.22
10147	O	LEU	B	504	-26.401	13.645	62.058	1.00	37.27
10148	N	PRO	B	505	-28.351	14.760	61.799	1.00	37.60
10149	CA	PRO	B	505	-28.702	14.166	60.511	1.00	38.16
10150	CB	PRO	B	505	-29.913	14.990	60.069	1.00	38.11
10151	CG	PRO	B	505	-30.500	15.517	61.311	1.00	37.73
10152	CD	PRO	B	505	-29.397	15.663	62.302	1.00	37.25
10153	C	PRO	B	505	-27.595	14.368	59.486	1.00	39.24
10154	O	PRO	B	505	-26.853	15.340	59.575	1.00	39.35
10155	N	PRO	B	506	-27.505	13.468	58.513	1.00	39.76
10156	CA	PRO	B	506	-26.495	13.573	57.456	1.00	40.19
10157	CB	PRO	B	506	-26.768	12.367	56.548	1.00	40.20
10158	CG	PRO	B	506	-27.981	11.665	57.081	1.00	40.90
10159	CD	PRO	B	506	-28.377	12.292	58.380	1.00	39.97
10160	C	PRO	B	506	-26.705	14.857	56.683	1.00	40.43
10161	O	PRO	B	506	-27.818	15.365	56.687	1.00	40.64
10162	N	HIS	B	507	-25.662	15.372	56.035	1.00	41.02
10163	CA	HIS	B	507	-25.761	16.622	55.288	1.00	41.46
10164	CB	HIS	B	507	-26.592	16.427	54.020	1.00	41.76
10165	CG	HIS	B	507	-26.332	15.126	53.331	1.00	42.08
10166	ND1	HIS	B	507	-25.069	14.733	52.936	1.00	42.83
10167	CE1	HIS	B	507	-25.138	13.543	52.366	1.00	43.44
10168	NE2	HIS	B	507	-26.400	13.147	52.381	1.00	43.74
10169	CD2	HIS	B	507	-27.166	14.118	52.984	1.00	42.93
10170	C	HIS	B	507	-26.387	17.696	56.157	1.00	41.97
10171	O	HIS	B	507	-27.146	18.535	55.681	1.00	42.17
10172	N	PHE	B	508	-26.086	17.664	57.445	1.00	42.32
10173	CA	PHE	B	508	-26.630	18.665	58.330	1.00	43.43
10174	CB	PHE	B	508	-25.972	18.611	59.698	1.00	43.24
10175	CG	PHE	B	508	-26.444	19.684	60.620	1.00	44.63
10176	CD1	PHE	B	508	-27.774	19.754	60.990	1.00	44.60
10177	CE1	PHE	B	508	-28.222	20.744	61.833	1.00	43.08
10178	CZ	PHE	B	508	-27.358	21.678	62.304	1.00	43.80
10179	CE2	PHE	B	508	-26.027	21.634	61.937	1.00	44.80
10180	CD2	PHE	B	508	-25.574	20.643	61.095	1.00	44.57
10181	C	PHE	B	508	-26.427	20.036	57.701	1.00	43.83
10182	O	PHE	B	508	-25.386	20.313	57.116	1.00	44.39
10183	N	ASP	B	509	-27.421	20.896	57.828	1.00	44.40
10184	CA	ASP	B	509	-27.363	22.203	57.188	1.00	44.75
10185	CB	ASP	B	509	-28.127	22.155	55.868	1.00	44.72
10186	CG	ASP	B	509	-28.252	23.510	55.212	1.00	45.91
10187	OD1	ASP	B	509	-27.683	24.497	55.732	1.00	46.23
10188	OD2	ASP	B	509	-28.913	23.679	54.164	1.00	47.63
10189	C	ASP	B	509	-27.936	23.261	58.108	1.00	44.61
10190	O	ASP	B	509	-29.127	23.274	58.374	1.00	44.66

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**FIGURE 3 GR**

A	B	C	D	E	F	G	H	I	J
10191	N	LYS	B	510	-27.072	24.143	58.589	1.00	44.90
10192	CA	LYS	B	510	-27.465	25.188	59.521	1.00	45.59
10193	CB	LYS	B	510	-26.255	26.041	59.907	1.00	45.82
10194	CG	LYS	B	510	-25.350	25.406	60.973	1.00	48.45
10195	CD	LYS	B	510	-24.164	26.314	61.353	1.00	50.98
10196	CE	LYS	B	510	-23.114	25.548	62.160	1.00	54.17
10197	NZ	LYS	B	510	-21.726	26.131	62.006	1.00	56.04
10198	C	LYS	B	510	-28.601	26.078	59.002	1.00	45.45
10199	O	LYS	B	510	-29.243	26.788	59.777	1.00	45.44
10200	N	SER	B	511	-28.847	26.042	57.699	1.00	45.26
10201	CA	SER	B	511	-29.916	26.848	57.118	1.00	45.33
10202	CB	SER	B	511	-29.769	26.907	55.599	1.00	45.41
10203	OG	SER	B	511	-28.785	27.866	55.242	1.00	47.44
10204	C	SER	B	511	-31.302	26.332	57.482	1.00	44.83
10205	O	SER	B	511	-32.235	27.106	57.662	1.00	44.80
10206	N	LYS	B	512	-31.430	25.016	57.606	1.00	44.34
10207	CA	LYS	B	512	-32.727	24.407	57.881	1.00	43.64
10208	CB	LYS	B	512	-32.697	22.921	57.507	1.00	43.69
10209	CG	LYS	B	512	-33.042	22.624	56.053	1.00	45.86
10210	CD	LYS	B	512	-32.208	23.433	55.078	1.00	49.67
10211	CE	LYS	B	512	-32.465	23.007	53.615	1.00	52.34
10212	NZ	LYS	B	512	-33.916	23.051	53.239	1.00	52.55
10213	C	LYS	B	512	-33.176	24.551	59.332	1.00	42.70
10214	O	LYS	B	512	-32.418	24.980	60.200	1.00	42.13
10215	N	LYS	B	513	-34.430	24.187	59.573	1.00	41.79
10216	CA	LYS	B	513	-34.991	24.138	60.913	1.00	40.90
10217	CB	LYS	B	513	-36.204	25.061	61.041	1.00	40.56
10218	CG	LYS	B	513	-35.900	26.538	60.747	1.00	42.83
10219	CD	LYS	B	513	-34.975	27.148	61.804	1.00	44.80
10220	CE	LYS	B	513	-34.335	28.445	61.310	1.00	47.34
10221	NZ	LYS	B	513	-33.346	28.208	60.191	1.00	48.84
10222	C	LYS	B	513	-35.403	22.688	61.160	1.00	39.90
10223	O	LYS	B	513	-36.470	22.255	60.723	1.00	40.55
10224	N	TYR	B	514	-34.559	21.930	61.842	1.00	38.20
10225	CA	TYR	B	514	-34.866	20.529	62.111	1.00	36.29
10226	CB	TYR	B	514	-33.594	19.733	62.310	1.00	36.16
10227	CG	TYR	B	514	-32.702	19.673	61.100	1.00	36.91
10228	CD1	TYR	B	514	-32.789	18.618	60.213	1.00	36.68
10229	CE1	TYR	B	514	-31.979	18.555	59.116	1.00	38.01
10230	CZ	TYR	B	514	-31.049	19.551	58.894	1.00	37.95
10231	OH	TYR	B	514	-30.245	19.466	57.794	1.00	40.53
10232	CE2	TYR	B	514	-30.928	20.610	59.757	1.00	37.42
10233	CD2	TYR	B	514	-31.741	20.667	60.863	1.00	37.50
10234	C	TYR	B	514	-35.681	20.389	63.370	1.00	35.23
10235	O	TYR	B	514	-35.557	21.194	64.295	1.00	34.65
10236	N	PRO	B	515	-36.525	19.371	63.401	1.00	34.07
10237	CA	PRO	B	515	-37.268	19.055	64.613	1.00	33.42
10238	CB	PRO	B	515	-38.158	17.891	64.197	1.00	33.93
10239	CG	PRO	B	515	-38.038	17.776	62.714	1.00	33.47
10240	CD	PRO	B	515	-36.819	18.460	62.287	1.00	33.86
10241	C	PRO	B	515	-36.213	18.584	65.596	1.00	32.62

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**FIGURE 3 GS**

A	B	C	D	E	F	G	H	I	J
10242	O	PRO	B	515	-35.150	18.138	65.180	1.00	31.56
10243	N	LEU	B	516	-36.473	18.708	66.882	1.00	31.86
10244	CA	LEU	B	516	-35.468	18.323	67.834	1.00	31.62
10245	CB	LEU	B	516	-34.798	19.553	68.440	1.00	31.58
10246	CG	LEU	B	516	-33.658	19.190	69.396	1.00	32.56
10247	CD1	LEU	B	516	-34.157	19.079	70.822	1.00	33.59
10248	CD2	LEU	B	516	-32.496	20.191	69.315	1.00	32.53
10249	C	LEU	B	516	-36.059	17.476	68.932	1.00	30.89
10250	O	LEU	B	516	-37.063	17.844	69.537	1.00	31.00
10251	N	LEU	B	517	-35.420	16.345	69.182	1.00	30.15
10252	CA	LEU	B	517	-35.787	15.490	70.293	1.00	29.98
10253	CB	LEU	B	517	-35.843	14.026	69.852	1.00	30.15
10254	CG	LEU	B	517	-36.336	13.035	70.903	1.00	29.99
10255	CD1	LEU	B	517	-36.296	11.620	70.333	1.00	30.41
10256	CD2	LEU	B	517	-37.741	13.368	71.320	1.00	29.68
10257	C	LEU	B	517	-34.748	15.631	71.389	1.00	29.32
10258	O	LEU	B	517	-33.571	15.417	71.150	1.00	29.44
10259	N	LEU	B	518	-35.184	16.005	72.585	1.00	29.05
10260	CA	LEU	B	518	-34.300	16.059	73.734	1.00	28.73
10261	CB	LEU	B	518	-34.741	17.159	74.703	1.00	28.96
10262	CG	LEU	B	518	-33.841	17.523	75.885	1.00	29.85
10263	CD1	LEU	B	518	-32.389	17.709	75.444	1.00	29.17
10264	CD2	LEU	B	518	-34.365	18.774	76.613	1.00	29.61
10265	C	LEU	B	518	-34.346	14.689	74.398	1.00	28.44
10266	O	LEU	B	518	-35.366	14.284	74.941	1.00	28.38
10267	N	ASP	B	519	-33.245	13.955	74.310	1.00	28.13
10268	CA	ASP	B	519	-33.141	12.639	74.920	1.00	27.66
10269	CB	ASP	B	519	-32.203	11.782	74.053	1.00	27.46
10270	CG	ASP	B	519	-31.791	10.492	74.719	1.00	28.03
10271	OD1	ASP	B	519	-31.132	9.700	74.021	1.00	25.81
10272	OD2	ASP	B	519	-32.072	10.188	75.924	1.00	27.65
10273	C	ASP	B	519	-32.558	12.898	76.305	1.00	27.39
10274	O	ASP	B	519	-31.413	13.291	76.423	1.00	27.33
10275	N	VAL	B	520	-33.335	12.683	77.359	1.00	27.69
10276	CA	VAL	B	520	-32.869	13.044	78.687	1.00	27.22
10277	CB	VAL	B	520	-33.750	14.180	79.309	1.00	28.16
10278	CG1	VAL	B	520	-35.117	13.662	79.702	1.00	28.43
10279	CG2	VAL	B	520	-33.916	15.325	78.315	1.00	29.01
10280	C	VAL	B	520	-32.805	11.920	79.676	1.00	26.59
10281	O	VAL	B	520	-33.569	10.970	79.594	1.00	26.43
10282	N	TYR	B	521	-31.841	12.018	80.588	1.00	26.09
10283	CA	TYR	B	521	-31.785	11.154	81.746	1.00	26.06
10284	CB	TYR	B	521	-30.607	10.166	81.703	1.00	26.25
10285	CG	TYR	B	521	-30.722	9.201	82.845	1.00	26.80
10286	CD1	TYR	B	521	-29.919	9.323	83.962	1.00	27.78
10287	CE1	TYR	B	521	-30.055	8.459	85.041	1.00	28.23
10288	CZ	TYR	B	521	-31.026	7.491	85.020	1.00	27.94
10289	CH	TYR	B	521	-31.163	6.653	86.098	1.00	28.80
10290	CE2	TYR	B	521	-31.862	7.369	83.929	1.00	25.85
10291	CD2	TYR	B	521	-31.706	8.225	82.852	1.00	26.01
10292	C	TYR	B	521	-31.747	12.111	82.962	1.00	26.26

**REPLACEMENT SHEET**  
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**FIGURE 3 GT**

A	B	C	D	E	F	G	H	I	J
10293	O	TYR	B	521	-32.742	12.272	83.694	1.00	25.89
10294	N	ALA	B	522	-30.606	12.765	83.163	1.00	26.30
10295	CA	ALA	B	522	-30.495	13.860	84.125	1.00	26.18
10296	CB	ALA	B	522	-31.546	14.942	83.835	1.00	26.81
10297	C	ALA	B	522	-30.498	13.539	85.594	1.00	26.17
10298	O	ALA	B	522	-30.602	14.440	86.425	1.00	26.60
10299	N	GLY	B	523	-30.401	12.274	85.937	1.00	26.31
10300	CA	GLY	B	523	-30.338	11.921	87.335	1.00	27.13
10301	C	GLY	B	523	-29.029	12.405	87.919	1.00	27.75
10302	O	GLY	B	523	-28.157	12.886	87.200	1.00	28.22
10303	N	PRO	B	524	-28.886	12.278	89.228	1.00	28.62
10304	CA	PRO	B	524	-27.662	12.695	89.924	1.00	28.81
10305	CB	PRO	B	524	-27.983	12.390	91.385	1.00	28.77
10306	CG	PRO	B	524	-29.455	12.370	91.450	1.00	29.35
10307	CD	PRO	B	524	-29.901	11.744	90.150	1.00	28.51
10308	C	PRO	B	524	-26.425	11.909	89.470	1.00	29.28
10309	O	PRO	B	524	-26.421	10.682	89.522	1.00	30.13
10310	N	CYS	B	525	-25.397	12.631	89.028	1.00	29.43
10311	CA	CYS	B	525	-24.117	12.091	88.536	1.00	29.13
10312	CB	CYS	B	525	-23.443	11.139	89.530	1.00	29.46
10313	SG	CYS	B	525	-21.704	10.843	89.134	1.00	30.55
10314	C	CYS	B	525	-24.244	11.431	87.187	1.00	29.15
10315	O	CYS	B	525	-23.481	10.528	86.845	1.00	28.81
10316	N	SER	B	526	-25.207	11.889	86.398	1.00	28.96
10317	CA	SER	B	526	-25.404	11.293	85.092	1.00	28.33
10318	CB	SER	B	526	-26.889	11.309	84.702	1.00	28.66
10319	OG	SER	B	526	-27.392	12.622	84.545	1.00	28.53
10320	C	SER	B	526	-24.583	12.037	84.075	1.00	28.00
10321	O	SER	B	526	-24.109	13.141	84.343	1.00	28.49
10322	N	GLN	B	527	-24.400	11.407	82.924	1.00	27.24
10323	CA	GLN	B	527	-23.727	11.993	81.789	1.00	27.34
10324	CB	GLN	B	527	-22.260	11.587	81.733	1.00	27.44
10325	CG	GLN	B	527	-21.465	12.350	80.679	1.00	27.08
10326	CD	GLN	B	527	-19.965	12.274	80.926	1.00	29.58
10327	OE1	GLN	B	527	-19.366	11.178	80.858	1.00	31.47
10328	NE2	GLN	B	527	-19.353	13.421	81.239	1.00	25.86
10329	C	GLN	B	527	-24.394	11.465	80.545	1.00	27.56
10330	O	GLN	B	527	-24.386	10.254	80.293	1.00	27.51
10331	N	LYS	B	528	-24.954	12.377	79.769	1.00	27.53
10332	CA	LYS	B	528	-25.605	12.032	78.532	1.00	28.34
10333	CB	LYS	B	528	-27.076	12.468	78.572	1.00	28.03
10334	CG	LYS	B	528	-27.939	11.962	79.420	1.00	26.85
10335	CD	LYS	B	528	-28.288	10.281	78.656	1.00	26.78
10336	CE	LYS	B	528	-29.609	10.442	77.855	1.00	27.00
10337	NZ	LYS	B	528	-29.895	9.276	76.941	1.00	25.88
10338	C	LYS	B	528	-24.887	12.715	77.403	1.00	28.93
10339	O	LYS	B	528	-25.200	12.509	76.242	1.00	29.39
10340	N	ALA	B	529	-23.930	13.554	77.751	1.00	30.32
10341	CA	ALA	B	529	-23.156	14.276	76.752	1.00	31.84
10342	CB	ALA	B	529	-22.910	15.703	77.219	1.00	32.18
10343	C	ALA	B	529	-21.859	13.507	76.669	1.00	32.41



**REPLACEMENT SHEET**  
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**FIGURE 3 GU**

A	B	C	D	E	F	G	H	I	J
10344	O	ALA	B	529	-21.059	13.567	77.600	1.00	33.03
10345	N	ASP	B	530	-21.653	12.815	75.549	1.00	32.75
10346	CA	ASP	B	530	-20.595	11.810	75.425	1.00	33.61
10347	CB	ASP	B	530	-21.257	10.422	75.322	1.00	34.27
10348	CG	ASP	B	530	-21.175	9.709	76.570	1.00	36.90
10349	OD1	ASP	B	530	-20.366	10.203	77.388	1.00	42.89
10350	OD2	ASP	B	530	-21.849	8.710	76.862	1.00	38.24
10351	C	ASP	B	530	-19.677	11.829	74.237	1.00	33.01
10352	O	ASP	B	530	-19.952	12.402	73.201	1.00	33.23
10353	N	THR	B	531	-18.634	11.045	74.378	1.00	31.98
10354	CA	THR	B	531	-17.716	10.815	73.309	1.00	31.94
10355	CB	THR	B	531	-16.300	10.963	73.904	1.00	32.42
10356	OG1	THR	B	531	-15.716	12.177	73.405	1.00	32.61
10357	CG2	THR	B	531	-15.397	9.869	73.441	1.00	31.77
10358	C	THR	B	531	-17.994	9.423	72.682	1.00	31.71
10359	O	THR	B	531	-17.361	9.020	71.711	1.00	32.01
10360	N	VAL	B	532	-18.993	8.716	73.209	1.00	31.31
10361	CA	VAL	B	532	-19.307	7.354	72.763	1.00	30.28
10362	CB	VAL	B	532	-20.103	6.599	73.846	1.00	30.52
10363	CG1	VAL	B	532	-20.431	5.169	73.390	1.00	28.75
10364	CG2	VAL	B	532	-19.338	6.602	75.166	1.00	28.66
10365	C	VAL	B	532	-20.057	7.203	71.437	1.00	30.03
10366	O	VAL	B	532	-21.003	7.939	71.145	1.00	29.85
10367	N	PHE	B	533	-19.628	6.225	70.643	1.00	29.69
10368	CA	PHE	B	533	-20.300	5.885	69.393	1.00	29.92
10369	CB	PHE	B	533	-19.333	5.270	68.387	1.00	29.69
10370	CG	PHE	B	533	-20.000	4.842	67.109	1.00	30.85
10371	CD1	PHE	B	533	-20.391	5.783	66.164	1.00	31.21
10372	CE1	PHE	B	533	-21.010	5.391	64.992	1.00	31.70
10373	CZ	PHE	B	533	-21.244	4.055	64.754	1.00	31.59
10374	CE2	PHE	B	533	-20.863	3.119	65.685	1.00	32.15
10375	CD2	PHE	B	533	-20.251	3.511	66.855	1.00	30.29
10376	C	PHE	B	533	-21.438	4.892	69.624	1.00	29.79
10377	O	PHE	B	533	-21.234	3.836	70.234	1.00	29.95
10378	N	ARG	B	534	-22.629	5.217	69.116	1.00	29.94
10379	CA	ARG	B	534	-23.802	4.355	69.313	1.00	29.47
10380	CB	ARG	B	534	-24.746	4.941	70.382	1.00	29.69
10381	CG	ARG	B	534	-24.083	5.232	71.717	1.00	30.30
10382	CD	ARG	B	534	-25.055	5.408	72.882	1.00	30.50
10383	NE	ARG	B	534	-24.534	6.379	73.830	1.00	33.78
10384	CZ	ARG	B	534	-23.814	6.069	74.886	1.00	34.14
10385	NH1	ARG	B	534	-23.566	4.795	75.163	1.00	38.43
10386	NH2	ARG	B	534	-23.360	7.015	75.673	1.00	28.76
10387	C	ARG	B	534	-24.615	4.101	68.052	1.00	29.10
10388	O	ARG	B	534	-24.753	4.958	67.182	1.00	28.45
10389	N	LEU	B	535	-25.160	2.897	67.971	1.00	28.76
10390	CA	LEU	B	535	-26.099	2.562	66.924	1.00	28.27
10391	CB	LEU	B	535	-25.647	1.339	66.162	1.00	27.84
10392	CG	LEU	B	535	-24.323	1.513	65.428	1.00	28.86
10393	CD1	LEU	B	535	-23.984	0.272	64.628	1.00	27.87
10394	CD2	LEU	B	535	-24.397	2.736	64.523	1.00	28.04

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**FIGURE 3 GV**

A	B	C	D	E	F	G	H	I	J
10395	C	LEU	B	535	-27.354	2.269	67.707	1.00	28.36
10396	O	LEU	B	535	-27.497	1.183	68.281	1.00	28.59
10397	N	ASN	B	536	-28.239	3.258	67.771	1.00	27.55
10398	CA	ASN	B	536	-29.443	3.159	68.578	1.00	27.33
10399	CB	ASN	B	536	-29.183	3.733	69.983	1.00	27.21
10400	CG	ASN	B	536	-28.799	5.208	69.946	1.00	26.48
10401	OD1	ASN	B	536	-28.718	5.803	68.880	1.00	26.35
10402	ND2	ASN	B	536	-28.564	5.800	71.113	1.00	25.63
10403	C	ASN	B	536	-30.620	3.883	67.953	1.00	27.21
10404	O	ASN	B	536	-30.562	4.331	66.817	1.00	27.61
10405	N	TRP	B	537	-31.698	4.006	68.706	1.00	27.52
10406	CA	TRP	B	537	-32.875	4.680	68.190	1.00	27.56
10407	CB	TRP	B	537	-33.956	4.692	69.254	1.00	27.37
10408	CG	TRP	B	537	-35.300	5.118	68.741	1.00	26.25
10409	CD1	TRP	B	537	-35.942	4.662	67.625	1.00	25.40
10410	NE1	TRP	B	537	-37.153	5.291	67.485	1.00	24.25
10411	CE2	TRP	B	537	-37.318	6.163	68.524	1.00	24.30
10412	CD2	TRP	B	537	-36.158	6.078	69.333	1.00	25.96
10413	CE3	TRP	B	537	-36.078	6.880	70.487	1.00	24.95
10414	CZ3	TRP	B	537	-37.135	7.719	70.782	1.00	23.71
10415	CH2	TRP	B	537	-38.275	7.768	69.953	1.00	24.08
10416	CZ2	TRP	B	537	-38.382	6.994	68.828	1.00	22.33
10417	C	TRP	B	537	-32.542	6.113	67.731	1.00	27.79
10418	O	TRP	B	537	-33.000	6.557	66.687	1.00	28.32
10419	N	ALA	B	538	-31.727	6.829	68.498	1.00	27.68
10420	CA	ALA	B	538	-31.332	8.186	68.094	1.00	27.27
10421	CB	ALA	B	538	-30.361	8.803	69.110	1.00	26.36
10422	C	ALA	B	538	-30.701	8.143	66.714	1.00	27.27
10423	O	ALA	B	538	-30.956	8.991	65.878	1.00	27.73
10424	N	THR	B	539	-29.882	7.138	66.456	1.00	27.11
10425	CA	THR	B	539	-29.237	7.056	65.158	1.00	27.29
10426	CB	THR	B	539	-28.390	5.777	65.095	1.00	27.30
10427	OG1	THR	B	539	-27.573	5.698	66.270	1.00	27.43
10428	CG2	THR	B	539	-27.383	5.866	63.962	1.00	26.66
10429	C	THR	B	539	-30.253	7.059	64.013	1.00	27.41
10430	O	THR	B	539	-30.097	7.794	63.041	1.00	28.14
10431	N	TYR	B	540	-31.270	6.202	64.121	1.00	27.11
10432	CA	TYR	B	540	-32.339	6.125	63.122	1.00	26.32
10433	CB	TYR	B	540	-33.311	4.961	63.466	1.00	25.83
10434	CG	TYR	B	540	-34.783	5.253	63.168	1.00	24.15
10435	CD1	TYR	B	540	-35.706	5.430	64.193	1.00	22.96
10436	CE1	TYR	B	540	-37.043	5.678	63.919	1.00	22.68
10437	CZ	TYR	B	540	-37.464	5.787	62.608	1.00	23.79
10438	OH	TYR	B	540	-38.765	6.064	62.302	1.00	23.93
10439	CE2	TYR	B	540	-36.568	5.643	61.577	1.00	25.15
10440	CD2	TYR	B	540	-35.228	5.376	61.864	1.00	23.64
10441	C	TYR	B	540	-33.107	7.447	62.980	1.00	26.37
10442	O	TYR	B	540	-33.390	7.891	61.871	1.00	26.82
10443	N	LEU	B	541	-33.455	8.067	64.105	1.00	26.28
10444	CA	LEU	B	541	-34.247	9.293	64.091	1.00	26.66
10445	CB	LEU	B	541	-34.497	9.784	65.513	1.00	26.15

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**FIGURE 3 GW**

A	B	C	D	E	F	G	H	I	J
10446	CG	LEU	B	541	-35.466	9.000	66.378	1.00	26.10
10447	CD1	LEU	B	541	-35.727	9.782	67.649	1.00	26.75
10448	CD2	LEU	B	541	-36.758	8.750	65.620	1.00	25.54
10449	C	LEU	B	541	-33.578	10.405	63.299	1.00	27.47
10450	O	LEU	B	541	-34.229	11.154	62.571	1.00	27.24
10451	N	ALA	B	542	-32.268	10.518	63.466	1.00	28.12
10452	CA	ALA	B	542	-31.500	11.526	62.769	1.00	29.58
10453	CB	ALA	B	542	-30.172	11.751	63.478	1.00	29.49
10454	C	ALA	B	542	-31.261	11.144	61.325	1.00	30.14
10455	O	ALA	B	542	-31.455	11.962	60.423	1.00	30.83
10456	N	SER	B	543	-30.869	9.891	61.114	1.00	30.58
10457	CA	SER	B	543	-30.534	9.403	59.784	1.00	30.83
10458	CB	SER	B	543	-29.899	8.028	59.867	1.00	30.44
10459	OG	SER	B	543	-29.501	7.617	58.576	1.00	31.51
10460	C	SER	B	543	-31.668	9.326	58.797	1.00	31.21
10461	O	SER	B	543	-31.550	9.789	57.670	1.00	31.31
10462	N	THR	B	544	-32.759	8.687	59.205	1.00	32.02
10463	CA	THR	B	544	-33.885	8.473	58.308	1.00	31.66
10464	CB	THR	B	544	-34.515	7.100	58.611	1.00	32.14
10465	OG1	THR	B	544	-33.545	6.064	58.384	1.00	32.56
10466	CG2	THR	B	544	-35.623	6.774	57.635	1.00	31.12
10467	C	THR	B	544	-34.930	9.559	58.428	1.00	31.54
10468	O	THR	B	544	-35.516	9.973	57.428	1.00	32.90
10469	N	GLU	B	545	-35.171	10.028	59.645	1.00	30.93
10470	CA	GLU	B	545	-36.245	10.990	59.883	1.00	30.44
10471	CB	GLU	B	545	-37.056	10.607	61.121	1.00	30.22
10472	CG	GLU	B	545	-37.476	9.154	61.168	1.00	31.17
10473	CD	GLU	B	545	-38.478	8.816	60.102	1.00	31.65
10474	OE1	GLU	B	545	-38.805	7.626	59.945	1.00	33.03
10475	OE2	GLU	B	545	-38.948	9.745	59.428	1.00	33.96
10476	C	GLU	B	545	-35.803	12.436	60.017	1.00	30.28
10477	O	GLU	B	545	-36.647	13.314	60.231	1.00	29.86
10478	N	ASN	B	546	-34.497	12.671	59.906	1.00	29.77
10479	CA	ASN	B	546	-33.925	14.024	59.972	1.00	29.94
10480	CB	ASN	B	546	-34.234	14.834	58.725	1.00	29.97
10481	CG	ASN	B	546	-33.620	14.232	57.488	1.00	31.87
10482	OD1	ASN	B	546	-34.321	13.778	56.591	1.00	33.83
10483	ND2	ASN	B	546	-32.299	14.218	57.434	1.00	35.28
10484	C	ASN	B	546	-34.281	14.807	61.213	1.00	29.50
10485	O	ASN	B	546	-34.498	16.019	61.169	1.00	30.14
10486	N	ILE	B	547	-34.333	14.100	62.326	1.00	29.19
10487	CA	ILE	B	547	-34.577	14.721	63.609	1.00	28.81
10488	CB	ILE	B	547	-35.426	13.787	64.492	1.00	28.59
10489	CG1	ILE	B	547	-36.751	13.460	63.803	1.00	26.88
10490	CD1	ILE	B	547	-37.627	12.520	64.592	1.00	25.63
10491	CG2	ILE	B	547	-35.654	14.432	65.856	1.00	26.86
10492	C	ILE	B	547	-33.225	14.903	64.264	1.00	28.95
10493	O	ILE	B	547	-32.350	14.055	64.125	1.00	29.39
10494	N	ILE	B	548	-33.032	16.009	64.960	1.00	29.52
10495	CA	ILE	B	548	-31.813	16.163	65.719	1.00	29.91
10496	CB	ILE	B	548	-31.404	17.636	65.803	1.00	30.67

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**FIGURE 3 GX**

A	B	C	D	E	F	G	H	I	J
10497	CG1	ILE	B	548	-31.059	18.186	64.416	1.00	31.31
10498	CD1	ILE	B	548	-30.815	19.719	64.396	1.00	32.35
10499	CG2	ILE	B	548	-30.218	17.811	66.750	1.00	29.86
10500	C	ILE	B	548	-32.144	15.633	67.093	1.00	29.97
10501	O	ILE	B	548	-33.183	15.963	67.645	1.00	30.56
10502	N	VAL	B	549	-31.303	14.770	67.642	1.00	30.13
10503	CA	VAL	B	549	-31.552	14.325	68.995	1.00	30.10
10504	CB	VAL	B	549	-31.926	12.818	69.104	1.00	30.19
10505	CG1	VAL	B	549	-31.532	12.071	67.867	1.00	31.17
10506	CG2	VAL	B	549	-31.387	12.201	70.375	1.00	29.16
10507	C	VAL	B	549	-30.419	14.746	69.899	1.00	30.23
10508	O	VAL	B	549	-29.253	14.390	69.700	1.00	30.38
10509	N	ALA	B	550	-30.788	15.535	70.894	1.00	30.33
10510	CA	ALA	B	550	-29.828	16.148	71.775	1.00	30.46
10511	CB	ALA	B	550	-30.010	17.661	71.769	1.00	30.64
10512	C	ALA	B	550	-29.939	15.652	73.177	1.00	30.61
10513	O	ALA	B	550	-30.982	15.179	73.619	1.00	30.50
10514	N	SER	B	551	-28.834	15.772	73.889	1.00	31.06
10515	CA	SER	B	551	-28.846	15.444	75.286	1.00	31.88
10516	CB	SER	B	551	-28.313	14.033	75.517	1.00	31.90
10517	OG	SER	B	551	-28.920	13.138	74.581	1.00	31.37
10518	C	SER	B	551	-28.035	16.516	75.969	1.00	32.32
10519	O	SER	B	551	-27.148	17.120	75.368	1.00	32.04
10520	N	PHE	B	552	-28.363	16.760	77.231	1.00	32.70
10521	CA	PHE	B	552	-27.749	17.840	77.955	1.00	32.31
10522	CB	PHE	B	552	-28.668	19.055	77.881	1.00	32.17
10523	CG	PHE	B	552	-28.124	20.257	78.572	1.00	32.00
10524	CD1	PHE	B	552	-27.188	21.067	77.939	1.00	32.75
10525	CE1	PHE	B	552	-26.670	22.170	78.575	1.00	31.83
10526	CZ	PHE	B	552	-27.080	22.476	79.847	1.00	30.43
10527	CE2	PHE	B	552	-28.010	21.672	80.490	1.00	32.93
10528	CD2	PHE	B	552	-28.528	20.573	79.852	1.00	30.89
10529	C	PHE	B	552	-27.508	17.453	79.401	1.00	32.19
10530	O	PHE	B	552	-28.389	16.917	80.075	1.00	32.10
10531	N	ASP	B	553	-26.293	17.702	79.862	1.00	32.28
10532	CA	ASP	B	553	-25.929	17.440	81.244	1.00	32.29
10533	CB	ASP	B	553	-24.550	16.815	81.336	1.00	32.17
10534	CG	ASP	B	553	-24.469	15.471	80.649	1.00	32.77
10535	OD1	ASP	B	553	-25.436	14.686	80.753	1.00	32.37
10536	OD2	ASP	B	553	-23.471	15.114	79.983	1.00	33.13
10537	C	ASP	B	553	-25.939	18.777	81.963	1.00	32.26
10538	O	ASP	B	553	-25.033	19.601	81.802	1.00	32.17
10539	N	GLY	B	554	-26.985	19.010	82.732	1.00	31.93
10540	CA	GLY	B	554	-27.085	20.260	83.448	1.00	32.51
10541	C	GLY	B	554	-26.731	20.065	84.900	1.00	32.51
10542	O	GLY	B	554	-25.998	19.146	85.268	1.00	31.81
10543	N	ARG	B	555	-27.235	20.946	85.746	1.00	32.88
10544	CA	ARG	B	555	-26.933	20.781	87.146	1.00	33.51
10545	CB	ARG	B	555	-27.632	21.834	87.979	1.00	33.65
10546	CG	ARG	B	555	-26.887	23.165	87.886	1.00	35.20
10547	CD	ARG	B	555	-27.614	24.317	88.459	1.00	35.52

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**FIGURE 3 GY**

A	B	C	D	E	F	G	H	I	J
10548	NE	ARG	B	555	-28.703	24.722	87.584	1.00	36.97
10549	CZ	ARG	B	555	-29.567	25.663	87.907	1.00	36.91
10550	NH1	ARG	B	555	-29.435	26.274	89.082	1.00	35.24
10551	NH2	ARG	B	555	-30.544	25.998	87.065	1.00	35.09
10552	C	ARG	B	555	-27.318	19.374	87.515	1.00	33.51
10553	O	ARG	B	555	-28.183	18.759	86.856	1.00	33.65
10554	N	GLY	B	556	-26.640	18.845	88.526	1.00	33.18
10555	CA	GLY	B	556	-26.839	17.473	88.946	1.00	32.38
10556	C	GLY	B	556	-25.990	16.476	88.169	1.00	32.39
10557	O	GLY	B	556	-25.766	15.373	88.644	1.00	32.12
10558	N	SER	B	557	-25.513	16.843	86.981	1.00	32.66
10559	CA	SER	B	557	-24.705	15.901	86.198	1.00	33.46
10560	CB	SER	B	557	-24.502	16.376	84.760	1.00	33.48
10561	OG	SER	B	557	-24.336	17.779	84.695	1.00	36.23
10562	C	SER	B	557	-23.372	15.544	86.871	1.00	32.98
10563	O	SER	B	557	-22.917	16.247	87.775	1.00	33.03
10564	N	GLY	B	558	-22.754	14.448	86.433	1.00	32.64
10565	CA	GLY	B	558	-21.533	13.973	87.058	1.00	31.98
10566	C	GLY	B	558	-20.212	14.257	86.369	1.00	31.63
10567	O	GLY	B	558	-20.162	14.804	85.272	1.00	30.81
10568	N	TYR	B	559	-19.122	13.907	87.051	1.00	32.06
10569	CA	TYR	B	559	-17.795	13.984	86.445	1.00	32.31
10570	CB	TYR	B	559	-17.816	13.166	85.150	1.00	31.85
10571	CG	TYR	B	559	-18.466	11.824	85.389	1.00	31.91
10572	CD1	TYR	B	559	-19.691	11.486	84.793	1.00	31.67
10573	CE1	TYR	B	559	-20.290	10.252	85.038	1.00	31.06
10574	CZ	TYR	B	559	-19.671	9.361	85.896	1.00	31.51
10575	OH	TYR	B	559	-20.234	8.141	86.176	1.00	29.87
10576	CE2	TYR	B	559	-18.474	9.695	86.507	1.00	32.01
10577	CD2	TYR	B	559	-17.887	10.918	86.251	1.00	30.62
10578	C	TYR	B	559	-17.313	15.415	86.184	1.00	32.86
10579	O	TYR	B	559	-16.400	15.627	85.384	1.00	33.13
10580	N	GLN	B	560	-17.931	16.392	86.843	1.00	33.01
10581	CA	GLN	B	560	-17.527	17.777	86.663	1.00	33.99
10582	CB	GLN	B	560	-18.528	18.546	85.815	1.00	34.05
10583	CG	GLN	B	560	-18.688	18.047	84.421	1.00	34.49
10584	CD	GLN	B	560	-20.057	18.380	83.874	1.00	35.71
10585	OE1	GLN	B	560	-20.234	19.389	83.187	1.00	36.71
10586	NE2	GLN	B	560	-21.034	17.543	84.190	1.00	35.92
10587	C	GLN	B	560	-17.337	18.507	87.971	1.00	34.22
10588	O	GLN	B	560	-17.092	19.703	87.973	1.00	34.78
10589	N	GLY	B	561	-17.433	17.788	89.082	1.00	34.69
10590	CA	GLY	B	561	-17.258	18.397	90.381	1.00	34.77
10591	C	GLY	B	561	-18.543	18.417	91.179	1.00	35.33
10592	O	GLY	B	561	-19.642	18.421	90.607	1.00	35.93
10593	N	ASP	B	562	-18.396	18.398	92.500	1.00	35.27
10594	CA	ASP	B	562	-19.506	18.442	93.425	1.00	35.86
10595	CB	ASP	B	562	-18.993	18.303	94.866	1.00	35.66
10596	CG	ASP	B	562	-18.734	16.849	95.272	1.00	37.04
10597	OD1	ASP	B	562	-18.796	15.958	94.392	1.00	38.30
10598	OD2	ASP	B	562	-18.478	16.489	96.456	1.00	37.08

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**FIGURE 3 GZ**

A	B	C	D	E	F	G	H	I	J
10599	C	ASP	B	562	-20.319	19.736	93.257	1.00	36.45
10600	O	ASP	B	562	-21.482	19.807	93.643	1.00	36.43
10601	N	LYS	B	563	-19.723	20.760	92.661	1.00	37.15
10602	CA	LYS	B	563	-20.461	22.004	92.485	1.00	37.86
10603	CB	LYS	B	563	-19.570	23.108	91.925	1.00	37.97
10604	CG	LYS	B	563	-20.311	24.262	91.289	1.00	40.44
10605	CD	LYS	B	563	-21.242	24.999	92.266	1.00	44.52
10606	CE	LYS	B	563	-21.799	26.278	91.615	1.00	46.39
10607	NZ	LYS	B	563	-23.034	26.785	92.282	1.00	48.60
10608	C	LYS	B	563	-21.674	21.750	91.600	1.00	37.60
10609	O	LYS	B	563	-22.795	22.130	91.937	1.00	37.35
10610	N	ILE	B	564	-21.441	21.095	90.473	1.00	37.54
10611	CA	ILE	B	564	-22.521	20.740	89.574	1.00	36.89
10612	CB	ILE	B	564	-21.958	20.391	88.203	1.00	37.38
10613	CG1	ILE	B	564	-21.528	21.665	87.475	1.00	36.18
10614	CD1	ILE	B	564	-20.505	21.393	86.420	1.00	37.37
10615	CG2	ILE	B	564	-22.990	19.622	87.382	1.00	36.46
10616	C	ILE	B	564	-23.328	19.570	90.135	1.00	36.51
10617	O	ILE	B	564	-24.539	19.668	90.286	1.00	36.37
10618	N	MET	B	565	-22.649	18.492	90.509	1.00	35.66
10619	CA	MET	B	565	-23.346	17.291	90.945	1.00	35.05
10620	CB	MET	B	565	-22.362	16.141	91.183	1.00	35.47
10621	CG	MET	B	565	-23.040	14.771	91.292	1.00	34.19
10622	SD	MET	B	565	-21.862	13.428	91.484	1.00	33.63
10623	CE	MET	B	565	-21.356	13.686	93.122	1.00	32.47
10624	C	MET	B	565	-24.221	17.446	92.176	1.00	35.16
10625	O	MET	B	565	-25.284	16.843	92.252	1.00	34.87
10626	N	HIS	B	566	-23.783	18.235	93.151	1.00	35.16
10627	CA	HIS	B	566	-24.552	18.368	94.387	1.00	35.53
10628	CB	HIS	B	566	-23.617	18.551	95.591	1.00	35.78
10629	CG	HIS	B	566	-22.923	17.293	96.018	1.00	38.07
10630	ND1	HIS	B	566	-23.198	16.063	95.456	1.00	39.45
10631	CE1	HIS	B	566	-22.451	15.140	96.038	1.00	39.87
10632	NE2	HIS	B	566	-21.704	15.726	96.959	1.00	39.19
10633	CD2	HIS	B	566	-21.982	17.071	96.968	1.00	38.79
10634	C	HIS	B	566	-25.609	19.480	94.351	1.00	35.11
10635	O	HIS	B	566	-26.342	19.695	95.320	1.00	35.67
10636	N	ALA	B	567	-25.701	20.193	93.245	1.00	34.61
10637	CA	ALA	B	567	-26.676	21.273	93.166	1.00	34.81
10638	CB	ALA	B	567	-26.582	21.946	91.832	1.00	34.30
10639	C	ALA	B	567	-28.129	20.828	93.455	1.00	35.03
10640	O	ALA	B	567	-28.921	21.603	93.973	1.00	35.23
10641	N	ILE	B	568	-28.464	19.577	93.149	1.00	34.76
10642	CA	ILE	B	568	-29.834	19.098	93.279	1.00	34.48
10643	CB	ILE	B	568	-30.242	18.257	92.020	1.00	34.57
10644	CG1	ILE	B	568	-29.180	17.203	91.676	1.00	33.61
10645	CD1	ILE	B	568	-28.959	16.175	92.728	1.00	34.77
10646	CG2	ILE	B	568	-30.396	19.155	90.803	1.00	32.25
10647	C	ILE	B	568	-30.056	18.319	94.565	1.00	35.25
10648	O	ILE	B	568	-31.076	17.649	94.730	1.00	35.69
10649	N	ASN	B	569	-29.093	18.413	95.472	1.00	35.41

**REPLACEMENT SHEET**  
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**FIGURE 3 HA**

A	B	C	D	E	F	G	H	I	J
10650	CA	ASN	B	569	-29.154	17.734	96.759	1.00	36.04
10651	CB	ASN	B	569	-27.907	18.065	97.590	1.00	36.33
10652	CG	ASN	B	569	-27.894	17.371	98.934	1.00	37.79
10653	OD1	ASN	B	569	-27.682	18.013	99.962	1.00	42.19
10654	ND2	ASN	B	569	-28.108	16.061	98.943	1.00	37.45
10655	C	ASN	B	569	-30.413	18.126	97.504	1.00	36.25
10656	O	ASN	B	569	-30.705	19.311	97.643	1.00	36.62
10657	N	ARG	B	570	-31.169	17.123	97.952	1.00	36.24
10658	CA	ARG	B	570	-32.410	17.337	98.682	1.00	36.46
10659	CB	ARG	B	570	-32.151	18.128	99.973	1.00	36.84
10660	CG	ARG	B	570	-31.252	17.434	101.001	1.00	37.76
10661	CD	ARG	B	570	-31.041	18.262	102.276	1.00	40.27
10662	NE	ARG	B	570	-32.317	18.656	102.880	1.00	40.70
10663	CZ	ARG	B	570	-32.968	17.917	103.763	1.00	40.23
10664	NH1	ARG	B	570	-32.459	16.754	104.151	1.00	39.98
10665	NH2	ARG	B	570	-34.125	18.336	104.258	1.00	40.21
10666	C	ARG	B	570	-33.459	18.052	97.837	1.00	36.25
10667	O	ARG	B	570	-34.534	18.389	98.325	1.00	35.95
10668	N	ARG	B	571	-33.159	18.258	96.560	1.00	36.43
10669	CA	ARG	B	571	-34.050	19.022	95.702	1.00	36.27
10670	CB	ARG	B	571	-33.518	20.446	95.568	1.00	37.14
10671	CG	ARG	B	571	-34.595	21.519	95.634	1.00	40.76
10672	CD	ARG	B	571	-34.789	22.148	97.013	1.00	44.21
10673	NE	ARG	B	571	-35.108	21.171	98.043	1.00	45.29
10674	CZ	ARG	B	571	-35.243	21.471	99.330	1.00	46.29
10675	NH1	ARG	B	571	-35.531	20.517	100.218	1.00	44.37
10676	NH2	ARG	B	571	-35.081	22.726	99.730	1.00	46.11
10677	C	ARG	B	571	-34.207	18.388	94.327	1.00	35.45
10678	O	ARG	B	571	-34.071	19.048	93.298	1.00	35.23
10679	N	LEU	B	572	-34.481	17.091	94.307	1.00	35.01
10680	CA	LEU	B	572	-34.735	16.401	93.045	1.00	34.53
10681	CB	LEU	B	572	-34.969	14.913	93.293	1.00	34.67
10682	CG	LEU	B	572	-33.819	13.949	93.040	1.00	34.88
10683	CD1	LEU	B	572	-33.944	12.764	93.977	1.00	34.07
10684	CD2	LEU	B	572	-32.479	14.628	93.169	1.00	33.53
10685	C	LEU	B	572	-35.977	16.984	92.389	1.00	33.75
10686	O	LEU	B	572	-36.930	17.368	93.062	1.00	33.76
10687	N	GLY	B	573	-35.964	17.065	91.073	1.00	32.83
10688	CA	GLY	B	573	-37.100	17.588	90.353	1.00	32.59
10689	C	GLY	B	573	-37.106	19.087	90.209	1.00	32.24
10690	O	GLY	B	573	-38.161	19.662	89.947	1.00	32.58
10691	N	THR	B	574	-35.954	19.728	90.375	1.00	31.52
10692	CA	THR	B	574	-35.867	21.193	90.230	1.00	31.33
10693	CB	THR	B	574	-35.477	21.880	91.591	1.00	31.68
10694	OG1	THR	B	574	-34.339	21.214	92.153	1.00	29.87
10695	CG2	THR	B	574	-36.555	21.646	92.658	1.00	30.59
10696	C	THR	B	574	-34.902	21.659	89.136	1.00	31.34
10697	O	THR	B	574	-35.268	21.766	87.971	1.00	30.98
10698	N	PHE	B	575	-33.661	21.931	89.531	1.00	31.94
10699	CA	PHE	B	575	-32.640	22.450	88.621	1.00	32.58
10700	CB	PHE	B	575	-31.329	22.632	89.387	1.00	32.81

**REPLACEMENT SHEET**  
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**FIGURE 3 HB**

A	B	C	D	E	F	G	H	I	J
10701	CG	PHE	B	575	-31.386	23.712	90.438	1.00	33.47
10702	CD1	PHE	B	575	-32.083	24.893	90.204	1.00	34.26
10703	CE1	PHE	B	575	-32.127	25.899	91.155	1.00	34.50
10704	CZ	PHE	B	575	-31.479	25.732	92.374	1.00	34.35
10705	CE2	PHE	B	575	-30.793	24.557	92.627	1.00	35.05
10706	CD2	PHE	B	575	-30.747	23.551	91.656	1.00	34.35
10707	C	PHE	B	575	-32.438	21.579	87.374	1.00	33.10
10708	O	PHE	B	575	-32.447	22.076	86.240	1.00	33.70
10709	N	GLU	B	576	-32.223	20.288	87.609	1.00	32.96
10710	CA	GLU	B	576	-32.090	19.264	86.576	1.00	33.38
10711	CB	GLU	B	576	-32.298	17.936	87.279	1.00	33.76
10712	CG	GLU	B	576	-33.338	18.161	88.384	1.00	36.02
10713	CD	GLU	B	576	-33.855	16.885	88.957	1.00	38.90
10714	OE1	GLU	B	576	-33.478	15.815	88.461	1.00	40.73
10715	OE2	GLU	B	576	-34.625	16.950	89.918	1.00	43.20
10716	C	GLU	B	576	-33.210	19.390	85.559	1.00	32.87
10717	O	GLU	B	576	-32.994	19.354	84.354	1.00	32.82
10718	N	VAL	B	577	-34.430	19.496	86.067	1.00	32.68
10719	CA	VAL	B	577	-35.588	19.679	85.225	1.00	32.75
10720	CB	VAL	B	577	-36.880	19.669	86.074	1.00	32.71
10721	CG1	VAL	B	577	-37.068	18.331	86.760	1.00	33.07
10722	CG2	VAL	B	577	-38.082	19.995	85.235	1.00	31.84
10723	C	VAL	B	577	-35.436	21.032	84.533	1.00	33.08
10724	O	VAL	B	577	-35.497	21.124	83.315	1.00	32.79
10725	N	GLU	B	578	-35.194	22.077	85.325	1.00	33.64
10726	CA	GLU	B	578	-35.077	23.436	84.793	1.00	34.20
10727	CB	GLU	B	578	-34.875	24.444	85.931	1.00	34.96
10728	CG	GLU	B	578	-36.095	24.555	86.849	1.00	38.55
10729	CD	GLU	B	578	-35.791	25.183	88.209	1.00	43.37
10730	OE1	GLU	B	578	-36.143	24.559	89.232	1.00	45.40
10731	OE2	GLU	B	578	-35.214	26.296	88.269	1.00	44.63
10732	C	GLU	B	578	-33.992	23.575	83.740	1.00	33.39
10733	O	GLU	B	578	-34.157	24.326	82.789	1.00	33.04
10734	N	ASP	B	579	-32.904	22.816	83.881	1.00	33.17
10735	CA	ASP	B	579	-31.781	22.940	82.952	1.00	32.69
10736	CB	ASP	B	579	-30.491	22.411	83.587	1.00	33.66
10737	CG	ASP	B	579	-29.996	23.282	84.751	1.00	34.52
10738	OD1	ASP	B	579	-30.589	24.347	85.036	1.00	35.69
10739	OD2	ASP	B	579	-29.012	22.975	85.449	1.00	37.32
10740	C	ASP	B	579	-32.040	22.329	81.566	1.00	32.13
10741	O	ASP	B	579	-31.517	22.815	80.568	1.00	32.02
10742	N	GLN	B	580	-32.852	21.272	81.498	1.00	31.39
10743	CA	GLN	B	580	-33.224	20.686	80.208	1.00	30.77
10744	CB	GLN	B	580	-33.987	19.364	80.402	1.00	30.25
10745	CG	GLN	B	580	-33.192	18.302	81.128	1.00	28.35
10746	CD	GLN	B	580	-32.087	17.731	80.274	1.00	25.57
10747	OE1	GLN	B	580	-32.331	17.356	79.135	1.00	26.87
10748	OE2	GLN	B	580	-30.874	17.673	80.811	1.00	22.34
10749	C	GLN	B	580	-34.096	21.661	79.425	1.00	31.03
10750	O	GLN	B	580	-33.985	21.772	78.213	1.00	31.52
10751	N	ILE	B	581	-34.991	22.360	80.110	1.00	31.20



**REPLACEMENT SHEET**  
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**FIGURE 3 HC**

A	B	C	D	E	F	G	H	I	J
10752	CA	ILE	B	581	-35.801	23.342	79.417	1.00	31.85
10753	CB	ILE	B	581	-36.861	23.940	80.365	1.00	32.05
10754	CG1	ILE	B	581	-37.834	22.858	80.832	1.00	31.00
10755	CD1	ILE	B	581	-38.632	23.258	82.037	1.00	30.97
10756	CG2	ILE	B	581	-37.597	25.053	79.678	1.00	30.17
10757	C	ILE	B	581	-34.891	24.446	78.870	1.00	32.71
10758	O	ILE	B	581	-34.969	24.809	77.701	1.00	33.46
10759	N	GLU	B	582	-34.012	24.966	79.723	1.00	33.21
10760	CA	GLU	B	582	-33.097	26.018	79.315	1.00	33.79
10761	CB	GLU	B	582	-32.262	26.491	80.517	1.00	34.12
10762	CG	GLU	B	582	-31.310	27.651	80.234	1.00	36.22
10763	CD	GLU	B	582	-32.004	28.887	79.664	1.00	39.46
10764	OE1	GLU	B	582	-31.339	29.644	78.914	1.00	40.85
10765	OE2	GLU	B	582	-33.204	29.105	79.959	1.00	39.16
10766	C	GLU	B	582	-32.216	25.536	78.160	1.00	33.82
10767	O	GLU	B	582	-31.911	26.296	77.252	1.00	33.39
10768	N	ALA	B	583	-31.827	24.264	78.195	1.00	33.90
10769	CA	ALA	B	583	-31.024	23.688	77.123	1.00	34.37
10770	CB	ALA	B	583	-30.724	22.211	77.411	1.00	33.98
10771	C	ALA	B	583	-31.757	23.810	75.803	1.00	34.95
10772	O	ALA	B	583	-31.205	24.290	74.824	1.00	35.07
10773	N	ALA	B	584	-33.011	23.366	75.797	1.00	35.74
10774	CA	ALA	B	584	-33.850	23.412	74.607	1.00	36.83
10775	CB	ALA	B	584	-35.240	22.854	74.916	1.00	36.57
10776	C	ALA	B	584	-33.966	24.826	74.068	1.00	37.33
10777	O	ALA	B	584	-33.833	25.049	72.865	1.00	37.77
10778	N	ARG	B	585	-34.243	25.774	74.954	1.00	38.17
10779	CA	ARG	B	585	-34.320	27.180	74.561	1.00	39.25
10780	CB	ARG	B	585	-34.476	28.072	75.792	1.00	38.94
10781	CG	ARG	B	585	-35.733	27.835	76.597	1.00	39.58
10782	CD	ARG	B	585	-36.191	29.063	77.366	1.00	40.42
10783	NE	ARG	B	585	-36.713	28.721	78.685	1.00	41.24
10784	CZ	ARG	B	585	-37.988	28.809	79.028	1.00	42.41
10785	NH1	ARG	B	585	-38.892	29.226	78.145	1.00	43.90
10786	NH2	ARG	B	585	-38.367	28.480	80.255	1.00	42.34
10787	C	ARG	B	585	-33.040	27.585	73.835	1.00	39.97
10788	O	ARG	B	585	-33.074	28.246	72.788	1.00	40.01
10789	N	GLN	B	586	-31.910	27.184	74.416	1.00	40.89
10790	CA	GLN	B	586	-30.606	27.495	73.865	1.00	41.76
10791	CB	GLN	B	586	-29.514	27.026	74.826	1.00	41.88
10792	CG	GLN	B	586	-29.546	27.743	76.154	1.00	44.21
10793	CD	GLN	B	586	-29.185	29.209	76.023	1.00	48.06
10794	OE1	GLN	B	586	-28.453	29.581	75.106	1.00	49.53
10795	NE2	GLN	B	586	-29.688	30.047	76.941	1.00	48.56
10796	C	GLN	B	586	-30.466	26.822	72.516	1.00	41.89
10797	O	GLN	B	586	-30.032	27.439	71.542	1.00	41.76
10798	N	PHE	B	587	-30.839	25.546	72.453	1.00	42.18
10799	CA	PHE	B	587	-30.792	24.845	71.181	1.00	42.60
10800	CB	PHE	B	587	-31.264	23.404	71.333	1.00	42.25
10801	CG	PHE	B	587	-30.377	22.576	72.206	1.00	43.51
10802	CD1	PHE	B	587	-29.069	22.966	72.452	1.00	44.12

**REPLACEMENT SHEET**  
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**FIGURE 3 HD**

A	B	C	D	E	F	G	H	I	J
10803	CE1	PHE	B	587	-28.242	22.209	73.266	1.00	44.69
10804	CZ	PHE	B	587	-28.719	21.058	73.847	1.00	43.72
10805	CE2	PHE	B	587	-30.026	20.664	73.616	1.00	44.68
10806	CD2	PHE	B	587	-30.847	21.415	72.797	1.00	42.78
10807	C	PHE	B	587	-31.587	25.605	70.101	1.00	42.70
10808	O	PHE	B	587	-31.130	25.726	68.971	1.00	42.70
10809	N	SER	B	588	-32.766	26.120	70.430	1.00	43.04
10810	CA	SER	B	588	-33.493	26.881	69.415	1.00	44.12
10811	CB	SER	B	588	-34.931	27.233	69.838	1.00	43.98
10812	OG	SER	B	588	-35.115	27.130	71.241	1.00	44.78
10813	C	SER	B	588	-32.717	28.125	69.020	1.00	44.46
10814	O	SER	B	588	-32.516	28.385	67.841	1.00	44.86
10815	N	LYS	B	589	-32.254	28.891	69.997	1.00	44.92
10816	CA	LYS	B	589	-31.522	30.106	69.670	1.00	45.30
10817	CB	LYS	B	589	-31.057	30.815	70.937	1.00	45.99
10818	CG	LYS	B	589	-32.115	31.744	71.537	1.00	48.60
10819	CD	LYS	B	589	-32.288	31.524	73.046	1.00	52.25
10820	CE	LYS	B	589	-33.778	31.463	73.447	1.00	54.10
10821	NZ	LYS	B	589	-33.964	31.373	74.926	1.00	54.99
10822	C	LYS	B	589	-30.340	29.836	68.733	1.00	44.98
10823	O	LYS	B	589	-29.896	30.742	68.015	1.00	45.18
10824	N	MET	B	590	-29.849	28.596	68.726	1.00	43.88
10825	CA	MET	B	590	-28.717	28.220	67.870	1.00	43.03
10826	CB	MET	B	590	-28.229	26.810	68.177	1.00	43.06
10827	CG	MET	B	590	-27.241	26.785	69.297	1.00	43.29
10828	SD	MET	B	590	-26.855	25.139	69.824	1.00	42.52
10829	CE	MET	B	590	-26.228	25.512	71.454	1.00	40.60
10830	C	MET	B	590	-28.946	28.364	66.372	1.00	42.27
10831	O	MET	B	590	-27.989	28.366	65.604	1.00	42.05
10832	N	GLY	B	591	-30.209	28.408	65.955	1.00	41.68
10833	CA	GLY	B	591	-30.531	28.683	64.565	1.00	40.28
10834	C	GLY	B	591	-30.969	27.606	63.595	1.00	39.89
10835	O	GLY	B	591	-31.449	27.930	62.510	1.00	39.69
10836	N	PHE	B	592	-30.807	26.336	63.955	1.00	39.16
10837	CA	PHE	B	592	-31.180	25.258	63.051	1.00	38.88
10838	CB	PHE	B	592	-29.943	24.481	62.631	1.00	39.01
10839	CG	PHE	B	592	-28.947	24.311	63.734	1.00	39.41
10840	CD1	PHE	B	592	-27.733	24.973	63.702	1.00	39.01
10841	CE1	PHE	B	592	-26.820	24.811	64.720	1.00	38.57
10842	CZ	PHE	B	592	-27.118	23.993	65.791	1.00	38.32
10843	CE2	PHE	B	592	-28.327	23.326	65.834	1.00	39.40
10844	CD2	PHE	B	592	-29.233	23.494	64.813	1.00	38.42
10845	C	PHE	B	592	-32.202	24.329	63.702	1.00	38.46
10846	O	PHE	B	592	-32.220	23.113	63.457	1.00	38.09
10847	N	VAL	B	593	-33.049	24.922	64.536	1.00	37.77
10848	CA	VAL	B	593	-34.079	24.181	65.245	1.00	37.24
10849	CB	VAL	B	593	-33.778	24.100	66.746	1.00	37.03
10850	CG1	VAL	B	593	-34.960	23.481	67.475	1.00	38.18
10851	CG2	VAL	B	593	-32.525	23.289	66.993	1.00	35.08
10852	C	VAL	B	593	-35.469	24.780	65.049	1.00	36.99
10853	O	VAL	B	593	-35.669	25.975	65.183	1.00	37.00

**REPLACEMENT SHEET**  
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**FIGURE 3 HE**

A	B	C	D	E	F	G	H	I	J
10854	N	ASP	B	594	-36.425	23.921	64.718	1.00	36.94
10855	CA	ASP	B	594	-37.811	24.326	64.546	1.00	36.41
10856	CB	ASP	B	594	-38.534	23.374	63.598	1.00	36.50
10857	CG	ASP	B	594	-39.998	23.712	63.447	1.00	35.85
10858	OD1	ASP	B	594	-40.682	23.044	62.656	1.00	35.54
10859	OD2	ASP	B	594	-40.553	24.641	64.073	1.00	37.18
10860	C	ASP	B	594	-38.531	24.370	65.891	1.00	36.63
10861	O	ASP	B	594	-38.871	23.337	66.479	1.00	35.76
10862	N	ASN	B	595	-38.763	25.592	66.346	1.00	37.09
10863	CA	ASN	B	595	-39.398	25.888	67.619	1.00	37.40
10864	CB	ASN	B	595	-39.615	27.392	67.730	1.00	38.21
10865	CG	ASN	B	595	-38.442	28.077	68.326	1.00	41.32
10866	OD1	ASN	B	595	-37.398	27.463	68.486	1.00	44.68
10867	ND2	ASN	B	595	-38.596	29.353	68.683	1.00	44.83
10868	C	ASN	B	595	-40.732	25.238	67.829	1.00	36.33
10869	O	ASN	B	595	-41.198	25.121	68.963	1.00	35.77
10870	N	LYS	B	596	-41.370	24.862	66.736	1.00	35.44
10871	CA	LYS	B	596	-42.703	24.292	66.840	1.00	35.17
10872	CB	LYS	B	596	-43.531	24.635	65.604	1.00	35.40
10873	CG	LYS	B	596	-43.862	26.079	65.433	1.00	37.84
10874	CD	LYS	B	596	-44.459	26.298	64.051	1.00	41.84
10875	CE	LYS	B	596	-43.501	25.866	62.928	1.00	45.03
10876	NZ	LYS	B	596	-42.146	26.569	62.900	1.00	43.27
10877	C	LYS	B	596	-42.643	22.780	66.988	1.00	33.77
10878	O	LYS	B	596	-43.663	22.133	67.193	1.00	33.83
10879	N	ARG	B	597	-41.446	22.222	66.880	1.00	32.37
10880	CA	ARG	B	597	-41.292	20.776	66.926	1.00	30.79
10881	CB	ARG	B	597	-41.179	20.224	65.519	1.00	30.90
10882	CG	ARG	B	597	-42.481	20.303	64.742	1.00	31.54
10883	CD	ARG	B	597	-42.440	19.570	63.422	1.00	31.38
10884	NE	ARG	B	597	-41.509	20.240	62.528	1.00	31.70
10885	CZ	ARG	B	597	-41.056	19.731	61.392	1.00	33.10
10886	NH1	ARG	B	597	-41.448	18.529	61.003	1.00	32.23
10887	NH2	ARG	B	597	-40.197	20.422	60.646	1.00	31.81
10888	C	ARG	B	597	-40.107	20.354	67.760	1.00	29.86
10889	O	ARG	B	597	-39.109	19.869	67.261	1.00	29.51
10890	N	ILE	B	598	-40.229	20.566	69.053	1.00	28.96
10891	CA	ILE	B	598	-39.206	20.150	69.976	1.00	28.37
10892	CB	ILE	B	598	-38.662	21.337	70.754	1.00	28.00
10893	CG1	ILE	B	598	-38.116	22.376	69.796	1.00	27.47
10894	CD1	ILE	B	598	-37.625	23.614	70.485	1.00	27.15
10895	CG2	ILE	B	598	-37.567	20.886	71.693	1.00	28.30
10896	C	ILE	B	598	-39.869	19.173	70.923	1.00	28.08
10897	O	ILE	B	598	-40.916	19.457	71.495	1.00	27.15
10898	N	ALA	B	599	-39.260	18.010	71.084	1.00	28.09
10899	CA	ALA	B	599	-39.843	17.015	71.960	1.00	27.94
10900	CB	ALA	B	599	-40.346	15.821	71.150	1.00	27.68
10901	C	ALA	B	599	-38.834	16.582	72.997	1.00	27.63
10902	O	ALA	B	599	-37.686	16.985	72.969	1.00	28.42
10903	N	ILE	B	600	-39.262	15.761	73.931	1.00	27.13
10904	CA	ILE	B	600	-38.343	15.288	74.931	1.00	26.72

**REPLACEMENT SHEET**  
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**FIGURE 3 HF**

A	B	C	D	E	F	G	H	I	J
10905	CB	ILE	B	600	-38.429	16.187	76.192	1.00	26.71
10906	CG1	ILE	B	600	-37.506	15.685	77.298	1.00	27.36
10907	CD1	ILE	B	600	-37.320	16.685	78.503	1.00	30.58
10908	CG2	ILE	B	600	-39.884	16.280	76.672	1.00	25.85
10909	C	ILE	B	600	-38.722	13.854	75.260	1.00	26.65
10910	O	ILE	B	600	-39.891	13.491	75.239	1.00	25.57
10911	N	TRP	B	601	-37.726	13.028	75.558	1.00	26.24
10912	CA	TRP	B	601	-38.055	11.691	75.979	1.00	25.83
10913	CB	TRP	B	601	-38.241	10.779	74.768	1.00	25.63
10914	CG	TRP	B	601	-37.071	9.993	74.383	1.00	23.01
10915	CD1	TRP	B	601	-36.013	10.407	73.628	1.00	20.91
10916	NE1	TRP	B	601	-35.137	9.367	73.438	1.00	21.35
10917	CE2	TRP	B	601	-35.619	8.251	74.067	1.00	21.02
10918	CD2	TRP	B	601	-36.850	8.610	74.664	1.00	22.98
10919	CE3	TRP	B	601	-37.553	7.641	75.378	1.00	21.50
10920	CZ3	TRP	B	601	-37.008	6.354	75.478	1.00	24.97
10921	CH2	TRP	B	601	-35.784	6.036	74.864	1.00	23.82
10922	CZ2	TRP	B	601	-35.079	6.974	74.161	1.00	22.00
10923	C	TRP	B	601	-37.006	11.166	76.929	1.00	25.90
10924	O	TRP	B	601	-35.868	11.619	76.919	1.00	25.94
10925	N	GLY	B	602	-37.405	10.239	77.782	1.00	25.43
10926	CA	GLY	B	602	-36.463	9.646	78.697	1.00	25.31
10927	C	GLY	B	602	-37.041	8.405	79.332	1.00	25.50
10928	O	GLY	B	602	-38.250	8.187	79.274	1.00	25.17
10929	N	TRP	B	603	-36.172	7.645	80.000	1.00	25.72
10930	CA	TRP	B	603	-36.507	6.372	80.626	1.00	25.45
10931	CB	TRP	B	603	-35.667	5.293	79.902	1.00	25.49
10932	CG	TRP	B	603	-36.141	3.874	79.984	1.00	25.45
10933	CD1	TRP	B	603	-36.340	3.148	81.105	1.00	25.41
10934	NE1	TRP	B	603	-36.768	1.882	80.783	1.00	25.87
10935	CE2	TRP	B	603	-36.821	1.764	79.418	1.00	25.67
10936	CD2	TRP	B	603	-36.437	2.999	78.881	1.00	25.16
10937	CE3	TRP	B	603	-36.400	3.134	77.488	1.00	24.78
10938	CZ3	TRP	B	603	-36.765	2.058	76.694	1.00	22.45
10939	CH2	TRP	B	603	-37.130	0.842	77.257	1.00	22.60
10940	CZ2	TRP	B	603	-37.174	0.671	78.613	1.00	23.90
10941	C	TRP	B	603	-36.147	6.445	82.119	1.00	25.53
10942	O	TRP	B	603	-35.051	6.864	82.475	1.00	25.25
10943	N	SER	B	604	-37.050	6.032	83.003	1.00	26.12
10944	CA	SER	B	604	-36.732	6.008	84.438	1.00	26.35
10945	CB	SER	B	604	-35.447	5.196	84.688	1.00	26.35
10946	OG	SER	B	604	-35.397	4.684	86.014	1.00	25.82
10947	C	SER	B	604	-36.608	7.436	85.002	1.00	26.75
10948	O	SER	B	604	-37.573	8.185	84.947	1.00	27.00
10949	N	TYR	B	605	-35.436	7.822	85.526	1.00	26.70
10950	CA	TYR	B	605	-35.241	9.209	85.985	1.00	26.20
10951	CB	TYR	B	605	-33.807	9.479	86.481	1.00	25.85
10952	CG	TYR	B	605	-33.693	10.715	87.352	1.00	26.33
10953	CD1	TYR	B	605	-33.605	10.611	88.730	1.00	26.80
10954	CE1	TYR	B	605	-33.505	11.730	89.520	1.00	27.25
10955	CZ	TYR	B	605	-33.525	12.982	88.947	1.00	26.52

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FIGURE 3 HG

A	B	C	D	E	F	G	H	I	J
10956	OH	TYR	B	605	-33.450	14.116	89.750	1.00	27.45
10957	CE2	TYR	B	605	-33.625	13.113	87.595	1.00	26.09
10958	CD2	TYR	B	605	-33.703	11.983	86.801	1.00	27.69
10959	C	TYR	B	605	-35.529	10.132	84.824	1.00	25.82
10960	O	TYR	B	605	-36.026	11.251	84.994	1.00	25.93
10961	N	GLY	B	606	-35.167	9.676	83.636	1.00	25.68
10962	CA	GLY	B	606	-35.444	10.437	82.428	1.00	26.10
10963	C	GLY	B	606	-36.936	10.453	82.106	1.00	26.32
10964	O	GLY	B	606	-37.385	11.275	81.328	1.00	27.10
10965	N	GLY	B	607	-37.709	9.539	82.682	1.00	26.64
10966	CA	GLY	B	607	-39.140	9.550	82.448	1.00	26.70
10967	C	GLY	B	607	-39.700	10.611	83.370	1.00	27.06
10968	O	GLY	B	607	-40.596	11.410	83.015	1.00	26.72
10969	N	TYR	B	608	-39.146	10.602	84.580	1.00	26.75
10970	CA	TYR	B	608	-39.489	11.552	85.607	1.00	26.74
10971	CB	TYR	B	608	-38.608	11.314	86.820	1.00	26.39
10972	CG	TYR	B	608	-38.776	12.343	87.904	1.00	26.42
10973	CD1	TYR	B	608	-37.744	13.222	88.216	1.00	25.46
10974	CE1	TYR	B	608	-37.879	14.167	89.206	1.00	24.73
10975	CZ	TYR	B	608	-39.065	14.254	89.900	1.00	26.75
10976	OH	TYR	B	608	-39.201	15.189	90.899	1.00	26.44
10977	CE2	TYR	B	608	-40.122	13.399	89.602	1.00	26.14
10978	CD2	TYR	B	608	-39.970	12.445	88.615	1.00	25.22
10979	C	TYR	B	608	-39.269	12.957	85.057	1.00	26.97
10980	O	TYR	B	608	-40.213	13.741	84.948	1.00	27.41
10981	N	VAL	B	609	-38.036	13.252	84.658	1.00	26.42
10982	CA	VAL	B	609	-37.717	14.578	84.132	1.00	26.01
10983	CB	VAL	B	609	-36.209	14.741	83.824	1.00	24.91
10984	CG1	VAL	B	609	-35.959	16.013	83.018	1.00	25.28
10985	CG2	VAL	B	609	-35.447	14.811	85.117	1.00	26.19
10986	C	VAL	B	609	-38.559	14.977	82.925	1.00	26.13
10987	O	VAL	B	609	-39.048	16.119	82.853	1.00	26.91
10988	N	THR	B	610	-38.699	14.064	81.963	1.00	25.25
10989	CA	THR	B	610	-39.546	14.317	80.802	1.00	24.57
10990	CB	THR	B	610	-39.698	13.047	79.957	1.00	24.19
10991	CG1	THR	B	610	-38.462	12.760	79.320	1.00	23.32
10992	CG2	THR	B	610	-40.641	13.302	78.786	1.00	23.39
10993	C	THR	B	610	-40.937	14.748	81.244	1.00	24.41
10994	O	THR	B	610	-41.488	15.737	80.752	1.00	24.36
10995	N	SER	B	611	-41.515	13.966	82.150	1.00	24.64
10996	CA	SER	B	611	-42.832	14.262	82.697	1.00	24.92
10997	CB	SER	B	611	-43.291	13.129	83.607	1.00	24.80
10998	CG	SER	B	611	-43.361	11.912	82.885	1.00	27.23
10999	C	SER	B	611	-42.845	15.579	83.479	1.00	24.77
11000	O	SER	B	611	-43.781	16.356	83.378	1.00	24.75
11001	N	MET	B	612	-41.819	15.828	84.275	1.00	24.95
11002	CA	MET	B	612	-41.794	17.078	85.027	1.00	25.17
11003	CB	MET	B	612	-40.673	17.095	86.025	1.00	24.49
11004	CG	MET	B	612	-40.860	16.104	87.098	1.00	25.36
11005	SD	MET	B	612	-42.043	16.655	88.288	1.00	27.85
11006	CE	MET	B	612	-41.102	18.007	89.180	1.00	24.85

**REPLACEMENT SHEET**  
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**FIGURE 3 HH**

A	B	C	D	E	F	G	H	I	J
11007	C	MET	B	612	-41.647	18.231	84.060	1.00	25.26
11008	O	MET	B	612	-42.230	19.284	84.262	1.00	24.69
11009	N	VAL	B	651	-40.899	18.005	82.986	1.00	25.69
11010	CA	VAL	B	613	-40.714	19.038	81.985	1.00	26.51
11011	CB	VAL	B	613	-39.604	18.667	81.009	1.00	26.40
11012	CG1	VAL	B	613	-39.745	19.468	79.724	1.00	24.53
11013	CG2	VAL	B	613	-38.235	18.893	81.665	1.00	26.78
11014	C	VAL	B	613	-41.995	19.280	81.206	1.00	27.69
11015	O	VAL	B	613	-42.360	20.421	80.922	1.00	29.31
11016	N	LEU	B	614	-42.693	18.213	80.852	1.00	28.17
11017	CA	LEU	B	614	-43.923	18.390	80.108	1.00	28.42
11018	CB	LEU	B	614	-44.466	17.047	79.603	1.00	28.18
11019	CG	LEU	B	614	-43.650	16.395	78.490	1.00	28.05
11020	CD1	LEU	B	614	-43.707	17.176	77.182	1.00	27.46
11021	CD2	LEU	B	614	-44.096	14.942	78.285	1.00	28.59
11022	C	LEU	B	614	-44.965	19.075	80.959	1.00	28.54
11023	O	LEU	B	614	-45.823	19.756	80.437	1.00	28.75
11024	N	GLY	B	615	-44.921	18.872	82.270	1.00	28.67
11025	CA	GLY	B	615	-45.909	19.506	83.115	1.00	29.23
11026	C	GLY	B	615	-45.456	20.827	83.730	1.00	29.40
11027	O	GLY	B	615	-46.066	21.303	84.691	1.00	29.24
11028	N	SER	B	616	-44.401	21.423	83.176	1.00	29.38
11029	CA	SER	B	616	-43.844	22.656	83.739	1.00	29.93
11030	CB	SER	B	616	-42.377	22.809	83.354	1.00	29.44
11031	OG	SER	B	616	-42.242	22.899	81.947	1.00	30.22
11032	C	SER	B	616	-44.601	23.914	83.311	1.00	30.00
11033	O	SER	B	616	-44.522	24.942	83.975	1.00	30.74
11034	N	GLY	B	617	-45.311	23.825	82.196	1.00	30.15
11035	CA	GLY	B	617	-46.071	24.932	81.667	1.00	30.00
11036	C	GLY	B	617	-45.196	25.825	80.830	1.00	30.41
11037	O	GLY	B	617	-45.622	26.895	80.410	1.00	30.44
11038	N	SER	B	618	-43.982	25.364	80.541	1.00	30.40
11039	CA	SER	B	618	-42.996	26.188	79.834	1.00	30.05
11040	CB	SER	B	618	-41.633	25.510	79.886	1.00	29.77
11041	OG	SER	B	618	-41.508	24.580	78.840	1.00	29.76
11042	C	SER	B	618	-43.326	26.550	78.384	1.00	30.09
11043	O	SER	B	618	-42.786	27.507	77.839	1.00	30.10
11044	N	GLY	B	619	-44.179	25.759	77.745	1.00	29.77
11045	CA	GLY	B	619	-44.522	25.998	76.361	1.00	28.92
11046	C	GLY	B	619	-43.446	25.601	75.376	1.00	28.97
11047	O	GLY	B	619	-43.663	25.666	74.177	1.00	28.88
11048	N	VAL	B	620	-42.285	25.166	75.847	1.00	29.59
11049	CA	VAL	B	620	-41.209	24.853	74.901	1.00	30.18
11050	CB	VAL	B	620	-39.800	24.867	75.558	1.00	30.73
11051	CG1	VAL	B	620	-38.724	24.512	74.524	1.00	31.72
11052	CG2	VAL	B	620	-39.488	26.236	76.143	1.00	30.75
11053	C	VAL	B	620	-41.418	23.545	74.153	1.00	29.98
11054	O	VAL	B	620	-41.136	23.448	72.957	1.00	30.00
11055	N	PHE	B	621	-41.955	22.553	74.850	1.00	30.04
11056	CA	PHE	B	621	-42.115	21.218	74.277	1.00	29.81
11057	CB	PHE	B	621	-41.692	20.169	75.296	1.00	29.63

**REPLACEMENT SHEET**  
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**FIGURE 3 HI**

A	B	C	D	E	F	G	H	I	J
11058	CG	PHE	B	621	-40.263	20.303	75.720	1.00	31.06
11059	CD1	PHE	B	621	-39.912	21.150	76.763	1.00	31.31
11060	CE1	PHE	B	621	-38.601	21.288	77.144	1.00	31.62
11061	CZ	PHE	B	621	-37.611	20.572	76.479	1.00	31.98
11062	CE2	PHE	B	621	-37.951	19.720	75.439	1.00	30.14
11063	CD2	PHE	B	621	-39.262	19.592	75.064	1.00	30.15
11064	C	PHE	B	621	-43.508	20.923	73.760	1.00	29.14
11065	O	PHE	B	621	-44.501	21.078	74.458	1.00	29.64
11066	N	LYS	B	622	-43.578	20.494	72.518	1.00	28.38
11067	CA	LYS	B	622	-44.846	20.142	71.936	1.00	28.57
11068	CB	LYS	B	622	-44.684	20.107	70.423	1.00	28.30
11069	CG	LYS	B	622	-45.972	19.819	69.654	1.00	27.32
11070	CD	LYS	B	622	-45.679	19.304	68.262	1.00	25.74
11071	CE	LYS	B	622	-46.812	19.629	67.312	1.00	29.17
11072	NZ	LYS	B	622	-47.880	18.607	67.329	1.00	30.08
11073	C	LYS	B	622	-45.188	18.733	72.361	1.00	28.90
11074	O	LYS	B	622	-46.338	18.321	72.364	1.00	29.01
11075	N	CYS	B	623	-44.174	18.049	72.846	1.00	29.41
11076	CA	CYS	B	623	-44.163	16.621	72.777	1.00	30.38
11077	CB	CYS	B	623	-43.343	16.450	71.526	1.00	32.05
11078	SG	CYS	B	623	-43.925	15.263	70.415	1.00	35.26
11079	C	CYS	B	623	-43.342	15.871	73.804	1.00	28.85
11080	O	CYS	B	623	-42.237	16.278	74.078	1.00	28.04
11081	N	GLY	B	624	-43.819	14.718	74.270	1.00	27.34
11082	CA	GLY	B	624	-43.032	13.943	75.200	1.00	26.09
11083	C	GLY	B	624	-43.401	12.492	75.416	1.00	25.41
11084	O	GLY	B	624	-44.578	12.120	75.383	1.00	25.44
11085	N	ILE	B	625	-42.381	11.671	75.649	1.00	24.38
11086	CA	ILE	B	625	-42.577	10.258	75.933	1.00	23.41
11087	CB	ILE	B	625	-42.016	9.342	74.813	1.00	23.54
11088	CG1	ILE	B	625	-42.540	9.730	73.439	1.00	22.37
11089	CD1	ILE	B	625	-41.874	8.957	72.293	1.00	22.74
11090	CG2	ILE	B	625	-42.374	7.889	75.106	1.00	21.80
11091	C	ILE	B	625	-41.854	9.902	77.214	1.00	23.00
11092	O	ILE	B	625	-40.641	10.039	77.294	1.00	22.97
11093	N	ALA	B	626	-42.596	9.434	78.208	1.00	21.99
11094	CA	ALA	B	626	-41.996	8.965	79.446	1.00	21.51
11095	CB	ALA	B	626	-42.714	9.391	80.626	1.00	21.45
11096	C	ALA	B	626	-42.059	7.426	79.530	1.00	21.24
11097	O	ALA	B	626	-43.151	6.840	79.462	1.00	20.87
11098	N	VAL	B	627	-40.899	6.776	79.673	1.00	21.44
11099	CA	VAL	B	627	-40.835	5.310	79.805	1.00	21.61
11100	CB	VAL	B	627	-39.898	4.661	78.757	1.00	21.50
11101	CG1	VAL	B	627	-40.092	3.155	78.747	1.00	21.19
11102	CG2	VAL	B	627	-40.143	5.231	77.357	1.00	21.77
11103	C	VAL	B	627	-40.394	4.892	81.214	1.00	21.72
11104	O	VAL	B	627	-39.311	5.258	81.658	1.00	21.89
11105	N	ALA	B	628	-41.236	4.127	81.907	1.00	21.55
11106	CA	ALA	B	628	-40.969	3.667	83.285	1.00	21.74
11107	CB	ALA	B	628	-39.960	2.585	83.289	1.00	21.90
11108	C	ALA	B	628	-40.539	4.778	84.233	1.00	22.31

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FIGURE 3 HJ

A	B	C	D	E	F	G	H	I	J
11109	O	ALA	B	628	-39.577	4.849	84.990	1.00	21.95
11110	N	PRO	B	629	-41.309	5.851	84.239	1.00	22.62
11111	CA	PRO	B	629	-40.939	7.052	84.984	1.00	22.22
11112	CB	PRO	B	629	-41.924	8.114	84.462	1.00	22.59
11113	CG	PRO	B	629	-42.917	7.396	83.615	1.00	22.96
11114	CD	PRO	B	629	-42.638	5.947	83.610	1.00	22.34
11115	C	PRO	B	629	-41.201	6.916	86.448	1.00	21.88
11116	O	PRO	B	629	-42.170	6.250	86.852	1.00	22.12
11117	N	VAL	B	630	-40.369	7.576	87.241	1.00	21.25
11118	CA	VAL	B	630	-40.671	7.744	88.646	1.00	20.98
11119	CB	VAL	B	630	-39.392	8.151	89.447	1.00	21.62
11120	CG1	VAL	B	630	-39.740	8.765	90.795	1.00	20.24
11121	CG2	VAL	B	630	-38.505	6.943	89.645	1.00	20.74
11122	C	VAL	B	630	-41.686	8.877	88.630	1.00	20.94
11123	O	VAL	B	630	-41.624	9.758	87.766	1.00	20.42
11124	N	SER	B	631	-42.654	8.866	89.533	1.00	21.29
11125	CA	SER	B	631	-43.641	9.950	89.500	1.00	22.20
11126	CB	SER	B	631	-45.016	9.426	89.102	1.00	21.51
11127	OG	SER	B	631	-45.506	8.572	90.108	1.00	21.79
11128	C	SER	B	631	-43.715	10.708	90.826	1.00	22.31
11129	O	SER	B	631	-44.127	11.857	90.875	1.00	22.12
11130	N	ARG	B	632	-43.369	10.028	91.902	1.00	22.84
11131	CA	ARG	B	632	-43.251	10.676	93.178	1.00	24.48
11132	CB	ARG	B	632	-44.570	10.749	93.938	1.00	24.78
11133	CG	ARG	B	632	-44.772	9.608	94.859	1.00	28.29
11134	CD	ARG	B	632	-45.406	9.963	96.172	1.00	33.49
11135	NE	ARG	B	632	-46.447	10.954	96.047	1.00	35.71
11136	CZ	ARG	B	632	-47.196	11.363	97.060	1.00	38.06
11137	NH1	ARG	B	632	-48.111	12.306	96.862	1.00	36.08
11138	NH2	ARG	B	632	-47.033	10.826	98.272	1.00	38.76
11139	C	ARG	B	632	-42.224	9.873	93.932	1.00	24.25
11140	O	ARG	B	632	-42.271	8.637	93.923	1.00	24.75
11141	N	TRP	B	633	-41.314	10.582	94.592	1.00	24.41
11142	CA	TRP	B	633	-40.159	9.974	95.258	1.00	24.82
11143	CB	TRP	B	633	-39.121	11.050	95.606	1.00	24.74
11144	CG	TRP	B	633	-38.523	11.596	94.366	1.00	23.36
11145	CD1	TRP	B	633	-38.728	12.816	93.828	1.00	21.42
11146	NE1	TRP	B	633	-38.047	12.927	92.637	1.00	20.50
11147	CE2	TRP	B	633	-37.376	11.759	92.394	1.00	20.18
11148	CD2	TRP	B	633	-37.666	10.888	93.449	1.00	22.71
11149	CE3	TRP	B	633	-37.107	9.598	93.428	1.00	21.96
11150	CZ3	TRP	B	633	-36.286	9.239	92.375	1.00	20.82
11151	CH2	TRP	B	633	-36.010	10.133	91.345	1.00	22.31
11152	CZ2	TRP	B	633	-36.545	11.398	91.331	1.00	22.59
11153	C	TRP	B	633	-40.485	9.045	96.420	1.00	25.58
11154	O	TRP	B	633	-39.739	8.128	96.714	1.00	26.20
11155	N	GLU	B	634	-41.623	9.234	97.059	1.00	26.51
11156	CA	GLU	B	634	-41.974	8.321	98.127	1.00	27.59
11157	CB	GLU	B	634	-43.173	8.852	98.923	1.00	28.41
11158	CG	GLU	B	634	-42.875	10.009	99.859	1.00	30.31
11159	CD	GLU	B	634	-43.883	11.137	99.660	1.00	34.65



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**FIGURE 3 HK**

A	B	C	D	E	F	G	H	I	J
11160	OE1	GLU	B	634	-44.789	11.313	100.508	1.00	35.00
11161	OE2	GLU	B	634	-43.789	11.829	98.616	1.00	37.30
11162	C	GLU	B	634	-42.260	6.898	97.602	1.00	27.46
11163	O	GLU	B	634	-42.306	5.961	98.389	1.00	27.14
11164	N	TYR	B	635	-42.454	6.752	96.285	1.00	27.23
11165	CA	TYR	B	635	-42.699	5.441	95.655	1.00	27.06
11166	CB	TYR	B	635	-43.411	5.595	94.309	1.00	26.89
11167	CG	TYR	B	635	-44.817	6.153	94.352	1.00	26.76
11168	CD1	TYR	B	635	-45.628	5.992	95.474	1.00	23.71
11169	CE1	TYR	B	635	-46.906	6.487	95.498	1.00	24.06
11170	CZ	TYR	B	635	-47.394	7.155	94.396	1.00	25.50
11171	OH	TYR	B	635	-48.675	7.661	94.391	1.00	26.00
11172	CE2	TYR	B	635	-46.609	7.334	93.273	1.00	26.24
11173	CD2	TYR	B	635	-45.335	6.831	93.251	1.00	25.67
11174	C	TYR	B	635	-41.427	4.681	95.322	1.00	27.02
11175	O	TYR	B	635	-41.461	3.479	95.123	1.00	27.59
11176	N	TYR	B	636	-40.314	5.388	95.200	1.00	27.04
11177	CA	TYR	B	636	-39.083	4.743	94.808	1.00	26.78
11178	CB	TYR	B	636	-38.226	5.682	93.990	1.00	26.50
11179	CG	TYR	B	636	-37.243	4.930	93.178	1.00	25.84
11180	CD1	TYR	B	636	-37.633	3.778	92.512	1.00	24.02
11181	CE1	TYR	B	636	-36.735	3.060	91.765	1.00	25.85
11182	CZ	TYR	B	636	-35.442	3.480	91.663	1.00	26.22
11183	OH	TYR	B	636	-34.578	2.738	90.901	1.00	29.04
11184	CE2	TYR	B	636	-35.014	4.638	92.318	1.00	27.07
11185	CD2	TYR	B	636	-35.917	5.350	93.076	1.00	25.48
11186	C	TYR	B	636	-38.320	4.168	95.995	1.00	26.99
11187	O	TYR	B	636	-38.723	4.348	97.133	1.00	26.78
11188	N	ASP	B	637	-37.233	3.451	95.727	1.00	27.76
11189	CA	ASP	B	637	-36.554	2.749	96.793	1.00	28.64
11190	CB	ASP	B	637	-35.692	1.581	96.265	1.00	29.22
11191	CG	ASP	B	637	-34.457	2.038	95.509	1.00	29.73
11192	OD1	ASP	B	637	-33.618	2.766	96.088	1.00	30.15
11193	OD2	ASP	B	637	-34.223	1.679	94.339	1.00	27.88
11194	C	ASP	B	637	-35.796	3.678	97.742	1.00	28.58
11195	O	ASP	B	637	-35.351	4.759	97.355	1.00	27.81
11196	N	SER	B	638	-35.687	3.252	98.993	1.00	28.79
11197	CA	SER	B	638	-35.047	4.070	100.021	1.00	29.71
11198	CB	SER	B	638	-35.147	3.364	101.363	1.00	30.02
11199	OG	SER	B	638	-34.538	2.089	101.298	1.00	31.85
11200	C	SER	B	638	-33.586	4.472	99.757	1.00	29.51
11201	O	SER	B	638	-33.218	5.666	99.859	1.00	29.46
11202	N	VAL	B	639	-32.739	3.515	99.398	1.00	29.23
11203	CA	VAL	B	639	-31.328	3.893	99.293	1.00	28.76
11204	CB	VAL	B	639	-30.347	2.708	99.372	1.00	28.62
11205	CG1	VAL	B	639	-29.415	2.664	98.191	1.00	30.17
11206	CG2	VAL	B	639	-31.069	1.434	99.627	1.00	27.57
11207	C	VAL	B	639	-31.024	4.879	98.183	1.00	28.25
11208	O	VAL	B	639	-30.274	5.825	98.383	1.00	28.61
11209	N	TYR	B	640	-31.623	4.702	97.022	1.00	27.85
11210	CA	TYR	B	640	-31.400	5.680	95.979	1.00	27.17

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**FIGURE 3 HL**

A	B	C	D	E	F	G	H	I	J
11211	CB	TYR	B	640	-31.926	5.154	94.654	1.00	27.16
11212	CG	TYR	B	640	-31.729	6.093	93.481	1.00	25.27
11213	CD1	TYR	B	640	-30.704	5.885	92.568	1.00	23.80
11214	CE1	TYR	B	640	-30.523	6.752	91.487	1.00	24.47
11215	CZ	TYR	B	640	-31.386	7.814	91.306	1.00	22.75
11216	OH	TYR	B	640	-31.212	8.651	90.229	1.00	23.63
11217	CE2	TYR	B	640	-32.420	8.028	92.191	1.00	21.55
11218	CD2	TYR	B	640	-32.579	7.175	93.280	1.00	23.20
11219	C	TYR	B	640	-32.081	7.018	96.335	1.00	27.36
11220	O	TYR	B	640	-31.454	8.072	96.309	1.00	27.20
11221	N	THR	B	641	-33.358	6.975	96.680	1.00	27.02
11222	CA	THR	B	641	-34.083	8.216	96.969	1.00	27.70
11223	CB	THR	B	641	-35.588	7.934	97.220	1.00	27.48
11224	OG1	THR	B	641	-36.098	7.085	96.180	1.00	26.79
11225	CG2	THR	B	641	-36.385	9.217	97.118	1.00	26.28
11226	C	THR	B	641	-33.546	9.032	98.146	1.00	27.73
11227	O	THR	B	641	-33.308	10.233	98.017	1.00	27.27
11228	N	GLU	B	642	-33.421	8.387	99.301	1.00	28.13
11229	CA	GLU	B	642	-32.970	9.069	100.519	1.00	28.83
11230	CB	GLU	B	642	-33.056	8.144	101.740	1.00	28.92
11231	CG	GLU	B	642	-34.464	7.610	102.007	1.00	27.27
11232	CD	GLU	B	642	-34.479	6.484	103.020	1.00	28.72
11233	OE1	GLU	B	642	-33.413	6.218	103.605	1.00	30.14
11234	OE2	GLU	B	642	-35.540	5.860	103.241	1.00	24.56
11235	C	GLU	B	642	-31.571	9.647	100.339	1.00	29.65
11236	O	GLU	B	642	-31.209	10.617	100.998	1.00	29.85
11237	N	ARG	B	643	-30.816	9.105	99.385	1.00	30.34
11238	CA	ARG	B	643	-29.468	9.582	99.124	1.00	30.99
11239	CB	ARG	B	643	-28.754	8.700	98.088	1.00	30.95
11240	CG	ARG	B	643	-27.281	9.049	97.868	1.00	29.73
11241	CD	ARG	B	643	-26.599	8.237	96.755	1.00	29.27
11242	NE	ARG	B	643	-26.793	6.805	96.945	1.00	27.98
11243	CZ	ARG	B	643	-27.111	5.957	95.974	1.00	27.57
11244	NH1	ARG	B	643	-27.282	4.687	96.257	1.00	26.22
11245	NH2	ARG	B	643	-27.274	6.379	94.720	1.00	26.92
11246	C	ARG	B	643	-29.502	11.017	98.643	1.00	31.73
11247	O	ARG	B	643	-28.590	11.813	98.920	1.00	31.73
11248	N	TYR	B	644	-30.566	11.348	97.927	1.00	32.09
11249	CA	TYR	B	644	-30.703	12.671	97.353	1.00	32.36
11250	CB	TYR	B	644	-30.970	12.547	95.847	1.00	32.58
11251	CG	TYR	B	644	-30.084	11.532	95.149	1.00	32.51
11252	CD1	TYR	B	644	-28.726	11.777	94.954	1.00	33.05
11253	CE1	TYR	B	644	-27.910	10.845	94.313	1.00	31.76
11254	CZ	TYR	B	644	-28.456	9.660	93.857	1.00	30.48
11255	OH	TYR	B	644	-27.665	8.733	93.237	1.00	29.23
11256	CE2	TYR	B	644	-29.794	9.393	94.037	1.00	32.14
11257	CD2	TYR	B	644	-30.604	10.326	94.682	1.00	32.61
11258	C	TYR	B	644	-31.811	13.488	98.006	1.00	32.48
11259	O	TYR	B	644	-31.833	14.699	97.889	1.00	32.79
11260	N	MET	B	645	-32.704	12.837	98.731	1.00	33.14
11261	CA	MET	B	645	-33.878	13.525	99.259	1.00	33.84

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**FIGURE 3 HM**

A	B	C	D	E	F	G	H	I	J
11262	CB	MET	B	645	-35.143	12.910	98.652	1.00	33.47
11263	CG	MET	B	645	-35.302	13.175	97.165	1.00	32.72
11264	SD	MET	B	645	-35.747	14.897	96.878	1.00	35.29
11265	CE	MET	B	645	-37.378	14.900	97.690	1.00	31.46
11266	C	MET	B	645	-34.006	13.492	100.774	1.00	34.80
11267	O	MET	B	645	-34.934	14.071	101.329	1.00	35.04
11268	N	GLY	B	646	-33.089	12.810	101.446	1.00	35.50
11269	CA	GLY	B	646	-33.198	12.669	102.879	1.00	36.25
11270	C	GLY	B	646	-34.489	11.931	103.173	1.00	37.10
11271	O	GLY	B	646	-35.018	11.221	102.312	1.00	37.45
11272	N	LEU	B	647	-35.003	12.092	104.385	1.00	37.37
11273	CA	LEU	B	647	-36.213	11.405	104.784	1.00	37.69
11274	CB	LEU	B	647	-36.164	11.134	106.280	1.00	37.94
11275	CG	LEU	B	647	-35.666	9.750	106.672	1.00	39.05
11276	CD1	LEU	B	647	-34.972	9.031	105.508	1.00	39.78
11277	CD2	LEU	B	647	-34.766	9.832	107.891	1.00	42.00
11278	C	LEU	B	647	-37.449	12.204	104.435	1.00	37.87
11279	O	LEU	B	647	-37.431	13.433	104.478	1.00	38.26
11280	N	PRO	B	648	-38.522	11.513	104.057	1.00	37.85
11281	CA	PRO	B	648	-39.791	12.171	103.763	1.00	38.05
11282	CB	PRO	B	648	-40.468	11.169	102.821	1.00	37.86
11283	CG	PRO	B	648	-40.047	9.848	103.376	1.00	37.20
11284	CD	PRO	B	648	-38.617	10.052	103.861	1.00	37.95
11285	C	PRO	B	648	-40.594	12.382	105.051	1.00	38.12
11286	O	PRO	B	648	-41.737	11.967	105.186	1.00	37.94
11287	N	THR	B	649	-39.963	13.033	106.013	1.00	39.12
11288	CA	THR	B	649	-40.621	13.361	107.265	1.00	39.41
11289	CB	THR	B	649	-39.795	12.811	108.432	1.00	39.84
11290	OG1	THR	B	649	-38.439	13.266	108.316	1.00	40.07
11291	OG2	THR	B	649	-39.676	11.284	108.333	1.00	38.96
11292	C	THR	B	649	-40.766	14.878	107.369	1.00	39.87
11293	O	THR	B	649	-40.027	15.625	106.739	1.00	39.52
11294	N	PRO	B	650	-41.738	15.347	108.136	1.00	40.74
11295	CA	PRO	B	650	-41.866	16.789	108.358	1.00	41.41
11296	CB	PRO	B	650	-43.029	16.888	109.344	1.00	41.77
11297	CG	PRO	B	650	-43.830	15.638	109.075	1.00	40.96
11298	CD	PRO	B	650	-42.788	14.576	108.826	1.00	40.74
11299	C	PRO	B	650	-40.573	17.295	108.986	1.00	42.00
11300	O	PRO	B	650	-40.084	18.370	108.630	1.00	42.19
11301	N	GLU	B	651	-39.998	16.503	109.884	1.00	42.27
11302	CA	GLU	B	651	-38.750	16.900	110.517	1.00	43.04
11303	CB	GLU	B	651	-38.437	16.013	111.731	1.00	43.65
11304	CG	GLU	B	651	-38.960	14.581	111.639	1.00	46.27
11305	CD	GLU	B	651	-40.428	14.450	112.031	1.00	48.91
11306	OE1	GLU	B	651	-41.001	13.348	111.860	1.00	49.45
11307	OE2	GLU	B	651	-41.012	15.447	112.519	1.00	50.85
11308	C	GLU	B	651	-37.580	16.920	109.530	1.00	42.60
11309	O	GLU	B	651	-36.536	17.501	109.803	1.00	42.70
11310	N	ASP	B	652	-37.751	16.301	108.366	1.00	41.94
11311	CA	ASP	B	652	-36.658	16.284	107.398	1.00	40.34
11312	CB	ASP	B	652	-36.195	14.849	107.140	1.00	40.56

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**FIGURE 3 HN**

A	B	C	D	E	F	G	H	I	J
11313	CG	ASP	B	652	-34.881	14.782	106.389	1.00	41.32
11314	OD1	ASP	B	652	-34.287	13.686	106.351	1.00	42.94
11315	OD2	ASP	B	652	-34.360	15.761	105.807	1.00	43.08
11316	C	ASP	B	652	-36.974	17.009	106.090	1.00	39.16
11317	O	ASP	B	652	-36.784	18.210	105.976	1.00	38.18
11318	N	ASN	B	653	-37.481	16.278	105.102	1.00	38.59
11319	CA	ASN	B	653	-37.642	16.866	103.777	1.00	37.75
11320	CB	ASN	B	653	-36.497	16.372	102.884	1.00	37.56
11321	CG	ASN	B	653	-36.285	17.237	101.693	1.00	36.92
11322	OD1	ASN	B	653	-36.601	18.411	101.720	1.00	37.91
11323	ND2	ASN	B	653	-35.757	16.661	100.621	1.00	38.45
11324	C	ASN	B	653	-38.991	16.603	103.116	1.00	37.39
11325	O	ASN	B	653	-39.155	16.811	101.906	1.00	37.19
11326	N	LEU	B	654	-39.959	16.160	103.908	1.00	36.97
11327	CA	LEU	B	654	-41.278	15.848	103.377	1.00	37.08
11328	CB	LEU	B	654	-42.278	15.570	104.491	1.00	37.28
11329	CG	LEU	B	654	-43.666	15.180	103.971	1.00	38.01
11330	CD1	LEU	B	654	-44.662	15.116	105.102	1.00	38.44
11331	CD2	LEU	B	654	-43.632	13.847	103.197	1.00	36.04
11332	C	LEU	B	654	-41.850	16.909	102.450	1.00	36.99
11333	O	LEU	B	654	-42.491	16.578	101.458	1.00	37.11
11334	N	ASP	B	655	-41.626	18.184	102.743	1.00	36.71
11335	CA	ASP	B	655	-42.205	19.200	101.874	1.00	37.08
11336	CB	ASP	B	655	-41.923	20.620	102.360	1.00	37.80
11337	CG	ASP	B	655	-42.766	21.000	103.567	1.00	40.19
11338	OD1	ASP	B	655	-43.653	20.200	103.963	1.00	41.54
11339	OD2	ASP	B	655	-42.599	22.073	104.188	1.00	43.81
11340	C	ASP	B	655	-41.756	19.040	100.439	1.00	36.43
11341	O	ASP	B	655	-42.586	19.062	99.534	1.00	36.62
11342	N	HIS	B	656	-40.456	18.864	100.221	1.00	35.68
11343	CA	HIS	B	656	-39.984	18.756	98.851	1.00	34.84
11344	CB	HIS	B	656	-38.497	19.045	98.675	1.00	34.52
11345	CG	HIS	B	656	-38.088	19.053	97.238	1.00	34.18
11346	ND1	HIS	B	656	-38.490	20.039	96.364	1.00	34.46
11347	CE1	HIS	B	656	-38.037	19.763	95.153	1.00	35.30
11348	NE2	HIS	B	656	-37.380	18.617	95.206	1.00	34.69
11349	CD2	HIS	B	656	-37.413	18.144	96.496	1.00	32.87
11350	C	HIS	B	656	-40.376	17.440	98.192	1.00	34.46
11351	O	HIS	B	656	-40.547	17.385	96.987	1.00	34.36
11352	N	TYR	B	657	-40.533	16.392	98.985	1.00	34.15
11353	CA	TYR	B	657	-41.034	15.135	98.459	1.00	34.15
11354	CB	TYR	B	657	-41.248	14.128	99.578	1.00	33.67
11355	CG	TYR	B	657	-40.122	13.151	99.774	1.00	34.12
11356	CD1	TYR	B	657	-40.111	11.918	99.109	1.00	32.26
11357	CE1	TYR	B	657	-39.073	11.019	99.310	1.00	32.46
11358	CZ	TYR	B	657	-38.026	11.364	100.171	1.00	32.01
11359	OH	TYR	B	657	-36.988	10.500	100.408	1.00	28.40
11360	CE2	TYR	B	657	-38.021	12.576	100.814	1.00	31.61
11361	CD2	TYR	B	657	-39.059	13.461	100.610	1.00	32.78
11362	C	TYR	B	657	-42.371	15.374	97.810	1.00	34.51
11363	O	TYR	B	657	-42.598	14.969	96.663	1.00	35.46

**REPLACEMENT SHEET**  
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**FIGURE 3 HO**

A	B	C	D	E	F	G	H	I	J
11364	N	ARG	B	658	-43.257	16.041	98.548	1.00	34.34
11365	CA	ARG	B	658	-44.621	16.309	98.078	1.00	34.28
11366	CB	ARG	B	658	-45.533	16.710	99.251	1.00	33.97
11367	CG	ARG	B	658	-45.624	15.670	100.366	1.00	33.52
11368	CD	ARG	B	658	-46.558	14.482	100.053	1.00	32.99
11369	NE	ARG	B	658	-46.162	13.262	100.760	1.00	31.06
11370	CZ	ARG	B	658	-46.732	12.811	101.868	1.00	30.92
11371	NH1	ARG	B	658	-47.741	13.466	102.423	1.00	30.91
11372	NH2	ARG	B	658	-46.284	11.697	102.431	1.00	31.55
11373	C	ARG	B	658	-44.696	17.381	96.998	1.00	34.35
11374	O	ARG	B	658	-45.724	17.517	96.329	1.00	34.58
11375	N	ASN	B	659	-43.616	18.130	96.810	1.00	33.88
11376	CA	ASN	B	659	-43.632	19.228	95.846	1.00	34.13
11377	CB	ASN	B	659	-42.758	20.375	96.365	1.00	35.28
11378	CG	ASN	B	659	-43.468	21.707	96.337	1.00	39.53
11379	OD1	ASN	B	659	-44.314	21.978	97.202	1.00	45.44
11380	ND2	ASN	B	659	-43.140	22.552	95.351	1.00	42.35
11381	C	ASN	B	659	-43.073	18.811	94.507	1.00	32.93
11382	O	ASN	B	659	-43.151	19.554	93.535	1.00	32.81
11383	N	SER	B	660	-42.486	17.626	94.462	1.00	31.18
11384	CA	SER	B	660	-41.767	17.196	93.275	1.00	30.39
11385	CB	SER	B	660	-40.329	16.884	93.676	1.00	29.81
11386	OG	SER	B	660	-40.358	15.885	94.689	1.00	29.23
11387	C	SER	B	660	-42.386	15.943	92.642	1.00	29.69
11388	O	SER	B	660	-41.685	15.002	92.263	1.00	29.31
11389	N	THR	B	661	-43.699	15.913	92.568	1.00	28.50
11390	CA	THR	B	661	-44.355	14.767	91.984	1.00	28.29
11391	CB	THR	B	661	-45.546	14.366	92.818	1.00	27.45
11392	OG1	THR	B	661	-46.535	15.387	92.715	1.00	29.47
11393	CG2	THR	B	661	-45.191	14.390	94.278	1.00	28.51
11394	C	THR	B	661	-44.840	15.193	90.634	1.00	27.58
11395	O	THR	B	661	-45.141	16.360	90.433	1.00	26.38
11396	N	VAL	B	662	-44.937	14.255	89.699	1.00	27.71
11397	CA	VAL	B	662	-45.468	14.649	88.413	1.00	27.87
11398	CB	VAL	B	662	-45.105	13.696	87.244	1.00	28.03
11399	CG1	VAL	B	662	-43.870	12.889	87.559	1.00	27.47
11400	CG2	VAL	B	662	-46.276	12.834	86.853	1.00	28.38
11401	C	VAL	B	662	-46.960	14.882	88.540	1.00	27.13
11402	O	VAL	B	662	-47.479	15.797	87.962	1.00	27.77
11403	N	MET	B	663	-47.633	14.082	89.342	1.00	27.99
11404	CA	MET	B	663	-49.089	14.201	89.497	1.00	28.23
11405	CB	MET	B	663	-49.606	13.268	90.587	1.00	27.98
11406	CG	MET	B	663	-49.700	11.811	90.119	1.00	29.16
11407	SD	MET	B	663	-48.064	11.094	89.939	1.00	28.55
11408	CE	MET	B	663	-47.730	10.581	91.585	1.00	25.42
11409	C	MET	B	663	-49.568	15.598	89.801	1.00	28.71
11410	O	MET	B	663	-50.646	15.979	89.386	1.00	28.82
11411	N	SER	B	664	-48.782	16.368	90.547	1.00	29.20
11412	CA	SER	B	664	-49.234	17.699	90.904	1.00	29.56
11413	CB	SER	B	664	-48.417	18.268	92.069	1.00	29.71
11414	OG	SER	B	664	-47.127	18.659	91.638	1.00	30.83

**REPLACEMENT SHEET**  
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**FIGURE 3 HP**

A	B	C	D	E	F	G	H	I	J
11415	C	SER	B	664	-49.201	18.630	89.690	1.00	29.03
11416	O	SER	B	664	-49.812	19.694	89.691	1.00	29.19
11417	N	ARG	B	665	-48.511	18.223	88.642	1.00	28.31
11418	CA	ARG	B	665	-48.440	19.072	87.452	1.00	27.87
11419	CB	ARG	B	665	-47.017	19.073	86.876	1.00	28.19
11420	CG	ARG	B	665	-45.941	19.442	87.920	1.00	27.90
11421	CD	ARG	B	665	-44.509	19.413	87.389	1.00	30.07
11422	NE	ARG	B	665	-43.613	20.173	88.261	1.00	30.26
11423	CZ	ARG	B	665	-42.526	20.811	87.849	1.00	29.50
11424	NH1	ARG	B	665	-42.166	20.784	86.574	1.00	25.52
11425	NH2	ARG	B	665	-41.786	21.479	88.730	1.00	32.36
11426	C	ARG	B	665	-49.448	18.636	86.408	1.00	27.44
11427	O	ARG	B	665	-49.492	19.183	85.330	1.00	26.97
11428	N	ALA	B	666	-50.289	17.675	86.755	1.00	27.53
11429	CA	ALA	B	666	-51.249	17.122	85.789	1.00	28.54
11430	CB	ALA	B	666	-52.321	16.312	86.519	1.00	27.96
11431	C	ALA	B	666	-51.902	18.154	84.876	1.00	28.92
11432	O	ALA	B	666	-51.965	17.975	83.656	1.00	28.75
11433	N	GLU	B	667	-52.402	19.226	85.483	1.00	29.98
11434	CA	GLU	B	667	-53.146	20.267	84.772	1.00	31.08
11435	CB	GLU	B	667	-53.572	21.367	85.753	1.00	31.61
11436	CG	GLU	B	667	-54.269	22.549	85.102	1.00	35.39
11437	CD	GLU	B	667	-55.606	22.180	84.483	1.00	41.19
11438	OE1	GLU	B	667	-55.922	22.736	83.410	1.00	43.54
11439	OE2	GLU	B	667	-56.348	21.345	85.070	1.00	43.87
11440	C	GLU	B	667	-52.391	20.848	83.587	1.00	30.55
11441	O	GLU	B	667	-52.954	21.052	82.530	1.00	31.52
11442	N	ASN	B	668	-51.107	21.090	83.752	1.00	30.46
11443	CA	ASN	B	668	-50.293	21.592	82.659	1.00	30.47
11444	CB	ASN	B	668	-48.925	21.999	83.174	1.00	30.94
11445	CG	ASN	B	668	-48.975	23.254	84.007	1.00	31.79
11446	OD1	ASN	B	668	-49.999	23.935	84.059	1.00	31.89
11447	ND2	ASN	B	668	-47.871	23.559	84.679	1.00	33.36
11448	C	ASN	B	668	-50.078	20.672	81.467	1.00	30.20
11449	O	ASN	B	668	-49.478	21.104	80.491	1.00	29.59
11450	N	PHE	B	669	-50.523	19.416	81.548	1.00	30.18
11451	CA	PHE	B	669	-50.333	18.472	80.449	1.00	30.59
11452	CB	PHE	B	669	-50.454	17.016	80.922	1.00	30.47
11453	CG	PHE	B	669	-49.197	16.461	81.550	1.00	30.43
11454	CD1	PHE	B	669	-48.851	16.784	82.853	1.00	29.28
11455	CE1	PHE	B	669	-47.707	16.268	83.431	1.00	29.56
11456	CZ	PHE	B	669	-46.886	15.411	82.708	1.00	29.46
11457	CE2	PHE	B	669	-47.223	15.084	81.404	1.00	31.42
11458	CD2	PHE	B	669	-48.367	15.604	80.834	1.00	29.78
11459	C	PHE	B	669	-51.341	18.778	79.351	1.00	31.27
11460	O	PHE	B	669	-51.230	18.280	78.237	1.00	30.77
11461	N	LYS	B	670	-52.311	19.634	79.670	1.00	32.49
11462	CA	LYS	B	670	-53.277	20.102	78.686	1.00	33.59
11463	CB	LYS	B	670	-54.122	21.234	79.263	1.00	34.38
11464	CG	LYS	B	670	-55.602	20.927	79.421	1.00	36.88
11465	CD	LYS	B	670	-55.941	20.640	80.878	1.00	38.81

**REPLACEMENT SHEET**  
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**FIGURE 3 HQ**

A	B	C	D	E	F	G	H	I	J
11466	CE	LYS	B	670	-57.403	20.289	81.032	1.00	40.91
11467	NZ	LYS	B	670	-57.968	20.918	82.253	1.00	42.43
11468	C	LYS	B	670	-52.578	20.668	77.480	1.00	33.88
11469	O	LYS	B	670	-53.119	20.639	76.377	1.00	34.54
11470	N	GLN	B	671	-51.377	21.196	77.695	1.00	33.98
11471	CA	GLN	B	671	-50.638	21.898	76.651	1.00	34.19
11472	CB	GLN	B	671	-49.692	22.932	77.284	1.00	34.36
11473	CG	GLN	B	671	-50.340	23.839	78.322	1.00	37.40
11474	CD	GLN	B	671	-49.355	24.829	78.946	1.00	42.07
11475	OE1	GLN	B	671	-48.527	25.430	78.238	1.00	43.94
11476	NE2	GLN	B	671	-49.447	25.008	80.267	1.00	42.23
11477	C	GLN	B	671	-49.808	21.013	75.732	1.00	33.69
11478	O	GLN	B	671	-49.307	21.488	74.713	1.00	34.21
11479	N	VAL	B	672	-49.633	19.745	76.091	1.00	32.52
11480	CA	VAL	B	672	-48.741	18.901	75.328	1.00	31.33
11481	CB	VAL	B	672	-47.445	18.642	76.125	1.00	32.01
11482	CG1	VAL	B	672	-46.686	19.941	76.396	1.00	30.83
11483	CG2	VAL	B	672	-47.759	17.933	77.421	1.00	31.20
11484	C	VAL	B	672	-49.321	17.542	74.964	1.00	30.81
11485	O	VAL	B	672	-50.338	17.100	75.516	1.00	29.98
11486	N	GLU	B	673	-48.662	16.901	74.005	1.00	30.01
11487	CA	GLU	B	673	-48.973	15.532	73.616	1.00	29.65
11488	CB	GLU	B	673	-48.823	15.371	72.104	1.00	30.55
11489	CG	GLU	B	673	-50.015	15.902	71.314	1.00	35.63
11490	CD	GLU	B	673	-49.669	16.234	69.871	1.00	42.70
11491	OE1	GLU	B	673	-49.877	15.365	68.986	1.00	44.03
11492	OE2	GLU	B	673	-49.190	17.373	69.620	1.00	45.75
11493	C	GLU	B	673	-48.000	14.638	74.379	1.00	27.71
11494	O	GLU	B	673	-46.790	14.775	74.266	1.00	27.36
11495	N	TYR	B	674	-48.543	13.725	75.161	1.00	26.17
11496	CA	TYR	B	674	-47.763	12.905	76.068	1.00	24.90
11497	CB	TYR	B	674	-48.220	13.252	77.458	1.00	23.69
11498	CG	TYR	B	674	-47.605	12.551	78.626	1.00	22.24
11499	CD1	TYR	B	674	-46.241	12.562	78.849	1.00	21.50
11500	CE1	TYR	B	674	-45.699	11.983	79.987	1.00	19.22
11501	CZ	TYR	B	674	-46.521	11.404	80.909	1.00	20.30
11502	OH	TYR	B	674	-46.015	10.826	82.039	1.00	21.46
11503	CE2	TYR	B	674	-47.875	11.386	80.719	1.00	22.28
11504	CD2	TYR	B	674	-48.411	11.974	79.591	1.00	22.47
11505	C	TYR	B	674	-48.043	11.435	75.866	1.00	24.60
11506	O	TYR	B	674	-49.207	11.039	75.779	1.00	24.93
11507	N	LEU	B	675	-46.978	10.637	75.847	1.00	23.30
11508	CA	LEU	B	675	-47.082	9.193	75.696	1.00	22.85
11509	CB	LEU	B	675	-46.382	8.722	74.417	1.00	22.22
11510	CG	LEU	B	675	-46.110	7.220	74.296	1.00	21.35
11511	CD1	LEU	B	675	-47.389	6.386	74.450	1.00	19.40
11512	CD2	LEU	B	675	-45.445	6.946	72.952	1.00	20.50
11513	C	LEU	B	675	-46.438	8.553	76.914	1.00	22.62
11514	O	LEU	B	675	-45.286	8.794	77.185	1.00	22.85
11515	N	LEU	B	676	-47.210	7.749	77.641	1.00	22.40
11516	CA	LEU	B	676	-46.799	7.165	78.892	1.00	22.33

**REPLACEMENT SHEET**  
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**FIGURE 3 HR**

A	B	C	D	E	F	G	H	I	J
11517	CB	LEU	B	676	-47.836	7.535	79.959	1.00	21.80
11518	CG	LEU	B	676	-47.637	6.916	81.355	1.00	22.36
11519	CD1	LEU	B	676	-48.763	7.329	82.268	1.00	22.97
11520	CD2	LEU	B	676	-46.293	7.293	81.973	1.00	19.55
11521	C	LEU	B	676	-46.651	5.633	78.748	1.00	22.40
11522	O	LEU	B	676	-47.599	4.936	78.368	1.00	23.59
11523	N	ILE	B	677	-45.465	5.119	79.034	1.00	21.89
11524	CA	ILE	B	677	-45.191	3.694	78.857	1.00	21.46
11525	CB	ILE	B	677	-44.180	3.514	77.735	1.00	21.56
11526	CG1	ILE	B	677	-44.697	4.172	76.463	1.00	20.48
11527	CD1	ILE	B	677	-43.713	4.108	75.327	1.00	22.71
11528	CG2	ILE	B	677	-43.876	2.041	77.544	1.00	19.66
11529	C	ILE	B	677	-44.608	3.055	80.089	1.00	21.16
11530	O	ILE	B	677	-43.749	3.632	80.729	1.00	22.03
11531	N	HIS	B	678	-45.056	1.859	80.422	1.00	21.16
11532	CA	HIS	B	678	-44.548	1.208	81.613	1.00	21.16
11533	CB	HIS	B	678	-45.262	1.774	82.848	1.00	20.85
11534	CG	HIS	B	678	-44.387	1.869	84.052	1.00	20.59
11535	ND1	HIS	B	678	-43.817	0.764	84.642	1.00	22.12
11536	CE1	HIS	B	678	-43.087	1.145	85.676	1.00	23.15
11537	NE2	HIS	B	678	-43.158	2.462	85.771	1.00	25.82
11538	CD2	HIS	B	678	-43.971	2.940	84.770	1.00	21.07
11539	C	HIS	B	678	-44.767	-0.298	81.548	1.00	21.06
11540	O	HIS	B	678	-45.797	-0.750	81.051	1.00	21.04
11541	N	GLY	B	679	-43.818	-1.073	82.072	1.00	20.72
11542	CA	GLY	B	679	-43.981	-2.512	82.086	1.00	20.65
11543	C	GLY	B	679	-44.753	-2.895	83.326	1.00	21.24
11544	O	GLY	B	679	-44.522	-2.338	84.403	1.00	21.36
11545	N	THR	B	680	-45.656	-3.858	83.216	1.00	21.21
11546	CA	THR	B	680	-46.439	-4.189	84.384	1.00	21.71
11547	CB	THR	B	680	-47.714	-4.958	84.010	1.00	22.25
11548	OG1	THR	B	680	-47.377	-6.256	83.499	1.00	20.42
11549	CG2	THR	B	680	-48.435	-4.238	82.863	1.00	20.27
11550	C	THR	B	680	-45.659	-4.920	85.468	1.00	22.64
11551	O	THR	B	680	-46.084	-4.924	86.646	1.00	23.38
11552	N	ALA	B	681	-44.535	-5.536	85.094	1.00	22.23
11553	CA	ALA	B	681	-43.735	-6.284	86.057	1.00	21.88
11554	CB	ALA	B	681	-43.446	-7.693	85.517	1.00	22.40
11555	C	ALA	B	681	-42.425	-5.557	86.396	1.00	22.23
11556	O	ALA	B	681	-41.370	-6.188	86.623	1.00	21.47
11557	N	ASP	B	682	-42.484	-4.230	86.378	1.00	21.85
11558	CA	ASP	B	682	-41.322	-3.435	86.711	1.00	22.43
11559	CB	ASP	B	682	-41.469	-2.007	86.192	1.00	22.15
11560	CG	ASP	B	682	-40.188	-1.243	86.262	1.00	22.54
11561	OD1	ASP	B	682	-39.992	-0.307	85.432	1.00	19.13
11562	OD2	ASP	B	682	-39.315	-1.527	87.131	1.00	24.17
11563	C	ASP	B	682	-41.107	-3.488	88.226	1.00	22.44
11564	O	ASP	B	682	-41.922	-2.991	88.997	1.00	22.84
11565	N	ASP	B	683	-40.036	-4.161	88.635	1.00	22.29
11566	CA	ASP	B	683	-39.717	-4.368	90.044	1.00	22.46
11567	CB	ASP	B	683	-38.888	-5.636	90.193	1.00	22.70



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**FIGURE 3 HS**

A	B	C	D	E	F	G	H	I	J
11568	CG	ASP	B	683	-37.609	-5.580	89.379	1.00	21.98
11569	OD1	ASP	B	683	-37.661	-5.817	88.142	1.00	21.50
11570	OD2	ASP	B	683	-36.515	-5.289	89.890	1.00	19.87
11571	C	ASP	B	683	-38.892	-3.221	90.593	1.00	22.43
11572	O	ASP	B	683	-38.692	-3.113	91.800	1.00	22.89
11573	N	ASN	B	684	-38.416	-2.377	89.691	1.00	22.67
11574	CA	ASN	B	684	-37.600	-1.224	90.030	1.00	22.77
11575	CB	ASN	B	684	-36.557	-1.018	88.946	1.00	22.51
11576	CG	ASN	B	684	-35.395	-0.215	89.429	1.00	24.70
11577	OD1	ASN	B	684	-34.256	-0.429	89.002	1.00	25.50
11578	ND2	ASN	B	684	-35.664	0.720	90.342	1.00	25.07
11579	C	ASN	B	684	-38.447	0.051	90.211	1.00	22.72
11580	O	ASN	B	684	-38.626	0.521	91.326	1.00	21.14
11581	N	VAL	B	685	-38.927	0.647	89.118	1.00	22.57
11582	CA	VAL	B	685	-39.903	1.715	89.304	1.00	22.58
11583	CB	VAL	B	685	-39.587	3.007	88.549	1.00	22.83
11584	CG1	VAL	B	685	-38.130	3.053	88.203	1.00	21.94
11585	CG2	VAL	B	685	-40.443	3.173	87.359	1.00	24.06
11586	C	VAL	B	685	-41.259	1.097	89.001	1.00	22.01
11587	O	VAL	B	685	-41.574	0.713	87.893	1.00	22.70
11588	N	HIS	B	686	-42.024	0.935	90.050	1.00	21.89
11589	CA	HIS	B	686	-43.258	0.196	89.990	1.00	22.12
11590	CB	HIS	B	686	-43.769	-0.013	91.408	1.00	21.20
11591	CG	HIS	B	686	-42.743	-0.645	92.284	1.00	21.37
11592	ND1	HIS	B	686	-42.659	-0.411	93.640	1.00	21.73
11593	CE1	HIS	B	686	-41.641	-1.096	94.136	1.00	22.17
11594	NE2	HIS	B	686	-41.052	-1.750	93.147	1.00	20.29
11595	CD2	HIS	B	686	-41.718	-1.479	91.977	1.00	20.36
11596	C	HIS	B	686	-44.270	0.798	89.059	1.00	21.76
11597	O	HIS	B	686	-44.334	2.003	88.897	1.00	21.68
11598	N	PHE	B	687	-45.026	-0.078	88.413	1.00	22.26
11599	CA	PHE	B	687	-46.042	0.330	87.460	1.00	22.39
11600	CB	PHE	B	687	-46.831	-0.887	87.014	1.00	22.17
11601	CG	PHE	B	687	-47.881	-0.572	86.006	1.00	22.72
11602	CD1	PHE	B	687	-47.545	-0.436	84.666	1.00	21.38
11603	CE1	PHE	B	687	-48.499	-0.142	83.740	1.00	21.54
11604	CZ	PHE	B	687	-49.826	0.044	84.141	1.00	21.45
11605	CE2	PHE	B	687	-50.172	-0.076	85.467	1.00	21.25
11606	CD2	PHE	B	687	-49.203	-0.393	86.398	1.00	21.37
11607	C	PHE	B	687	-46.957	1.328	88.139	1.00	22.85
11608	O	PHE	B	687	-47.563	2.191	87.485	1.00	22.91
11609	N	GLN	B	688	-47.007	1.191	89.466	1.00	23.57
11610	CA	GLN	B	688	-47.739	2.049	90.391	1.00	24.37
11611	CB	GLN	B	688	-47.237	1.790	91.824	1.00	24.04
11612	CG	GLN	B	688	-47.775	2.791	92.861	1.00	25.68
11613	CD	GLN	B	688	-46.957	2.851	94.149	1.00	26.71
11614	OE1	GLN	B	688	-45.749	2.652	94.143	1.00	27.21
11615	NE2	GLN	B	688	-47.625	3.115	95.252	1.00	28.39
11616	C	GLN	B	688	-47.489	3.501	90.050	1.00	24.16
11617	O	GLN	B	688	-48.390	4.319	89.960	1.00	24.28
11618	N	GLN	B	689	-46.227	3.780	89.833	1.00	24.39

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**FIGURE 3 HT**

A	B	C	D	E	F	G	H	I	J
11619	CA	GLN	B	689	-45.716	5.111	89.555	1.00	24.90
11620	CB	GLN	B	689	-44.213	4.921	89.380	1.00	24.89
11621	CG	GLN	B	689	-43.351	6.093	89.446	1.00	29.13
11622	CD	GLN	B	689	-42.643	6.286	90.782	1.00	30.33
11623	OE1	GLN	B	689	-42.614	7.396	91.266	1.00	34.56
11624	NE2	GLN	B	689	-42.031	5.245	91.333	1.00	30.33
11625	C	GLN	B	689	-46.420	5.690	88.312	1.00	24.89
11626	O	GLN	B	689	-46.926	6.817	88.322	1.00	24.56
11627	N	SER	B	690	-46.503	4.910	87.241	1.00	24.52
11628	CA	SER	B	690	-47.227	5.386	86.062	1.00	24.06
11629	CB	SER	B	690	-46.801	4.653	84.797	1.00	23.60
11630	OG	SER	B	690	-45.753	5.350	84.176	1.00	24.82
11631	C	SER	B	690	-48.742	5.262	86.250	1.00	23.47
11632	O	SER	B	690	-49.495	6.037	85.702	1.00	23.46
11633	N	ALA	B	691	-49.188	4.297	87.035	1.00	22.97
11634	CA	ALA	B	691	-50.622	4.206	87.320	1.00	23.09
11635	CB	ALA	B	691	-50.913	2.993	88.171	1.00	21.96
11636	C	ALA	B	691	-51.164	5.490	87.992	1.00	23.33
11637	O	ALA	B	691	-52.297	5.891	87.758	1.00	23.06
11638	N	GLN	B	692	-50.358	6.115	88.848	1.00	23.59
11639	CA	GLN	B	692	-50.767	7.358	89.479	1.00	23.92
11640	CB	GLN	B	692	-50.005	7.608	90.777	1.00	23.48
11641	CG	GLN	B	692	-50.201	6.512	91.794	1.00	24.15
11642	CD	GLN	B	692	-51.483	6.655	92.580	1.00	23.96
11643	OE1	GLN	B	692	-52.332	7.479	92.254	1.00	23.98
11644	NE2	GLN	B	692	-51.630	5.845	93.618	1.00	24.58
11645	C	GLN	B	692	-50.637	8.540	88.539	1.00	23.75
11646	O	GLN	B	692	-51.447	9.466	88.600	1.00	24.89
11647	N	ILE	B	693	-49.661	8.534	87.646	1.00	23.63
11648	CA	ILE	B	693	-49.625	9.635	86.695	1.00	23.61
11649	CB	ILE	B	693	-48.448	9.547	85.729	1.00	23.53
11650	CG1	ILE	B	693	-47.132	9.755	86.446	1.00	22.66
11651	CD1	ILE	B	693	-45.967	9.319	85.588	1.00	19.56
11652	CG2	ILE	B	693	-48.568	10.607	84.642	1.00	22.24
11653	C	ILE	B	693	-50.908	9.594	85.898	1.00	24.18
11654	O	ILE	B	693	-51.605	10.579	85.813	1.00	24.84
11655	N	SER	B	694	-51.234	8.429	85.338	1.00	24.50
11656	CA	SER	B	694	-52.399	8.319	84.456	1.00	24.84
11657	CB	SER	B	694	-52.510	6.927	83.814	1.00	24.09
11658	OG	SER	B	694	-52.933	5.961	84.765	1.00	23.12
11659	C	SER	B	694	-53.683	8.687	85.172	1.00	24.78
11660	O	SER	B	694	-54.517	9.362	84.618	1.00	24.83
11661	N	LYS	B	695	-53.841	8.224	86.400	1.00	25.10
11662	CA	LYS	B	695	-55.038	8.536	87.162	1.00	25.16
11663	CB	LYS	B	695	-55.053	7.777	88.494	1.00	24.97
11664	CG	LYS	B	695	-56.173	8.181	89.449	1.00	24.11
11665	CD	LYS	B	695	-56.591	7.037	90.321	1.00	23.85
11666	CE	LYS	B	695	-55.439	6.603	91.228	1.00	26.36
11667	NZ	LYS	B	695	-54.961	7.687	92.144	1.00	26.44
11668	C	LYS	B	695	-55.132	10.048	87.387	1.00	25.98
11669	O	LYS	B	695	-56.220	10.615	87.364	1.00	26.20

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**FIGURE 3 HU**

A	B	C	D	E	F	G	H	I	J
11670	N	ALA	B	696	-53.990	10.704	87.581	1.00	26.38
11671	CA	ALA	B	696	-53.991	12.151	87.789	1.00	26.38
11672	CB	ALA	B	696	-52.647	12.643	88.343	1.00	26.31
11673	C	ALA	B	696	-54.330	12.902	86.528	1.00	26.34
11674	O	ALA	B	696	-54.947	13.963	86.581	1.00	26.21
11675	N	LEU	B	697	-53.897	12.378	85.388	1.00	26.74
11676	CA	LEU	B	697	-54.185	13.035	84.123	1.00	26.97
11677	CB	LEU	B	697	-53.319	12.465	83.009	1.00	26.55
11678	CG	LEU	B	697	-51.812	12.726	83.104	1.00	27.21
11679	CD1	LEU	B	697	-51.087	11.965	82.023	1.00	26.23
11680	CD2	LEU	B	697	-51.490	14.191	82.979	1.00	25.07
11681	C	LEU	B	697	-55.676	12.884	83.783	1.00	27.52
11682	O	LEU	B	697	-56.294	13.756	83.155	1.00	27.46
11683	N	VAL	B	698	-56.255	11.774	84.221	1.00	27.87
11684	CA	VAL	B	698	-57.650	11.501	83.937	1.00	27.55
11685	CB	VAL	B	698	-57.975	10.027	84.251	1.00	27.83
11686	CG1	VAL	B	698	-59.498	9.805	84.293	1.00	25.37
11687	CG2	VAL	B	698	-57.290	9.114	83.225	1.00	24.42
11688	C	VAL	B	698	-58.495	12.392	84.806	1.00	28.67
11689	O	VAL	B	698	-59.501	12.963	84.358	1.00	29.44
11690	N	ASP	B	699	-58.071	12.508	86.053	1.00	28.50
11691	CA	ASP	B	699	-58.772	13.302	87.028	1.00	29.98
11692	CB	ASP	B	699	-58.153	13.104	88.414	1.00	29.83
11693	CG	ASP	B	699	-58.526	11.756	89.028	1.00	32.75
11694	OD1	ASP	B	699	-57.905	11.360	90.047	1.00	35.84
11695	OD2	ASP	B	699	-59.424	11.013	88.551	1.00	34.23
11696	C	ASP	B	699	-58.883	14.785	86.656	1.00	29.99
11697	O	ASP	B	699	-59.751	15.470	87.180	1.00	29.61
11698	N	VAL	B	700	-58.032	15.267	85.746	1.00	29.98
11699	CA	VAL	B	700	-58.128	16.666	85.306	1.00	30.33
11700	CB	VAL	B	700	-56.844	17.521	85.627	1.00	31.00
11701	CG1	VAL	B	700	-56.511	17.481	87.115	1.00	29.84
11702	CG2	VAL	B	700	-55.641	17.066	84.795	1.00	30.71
11703	C	VAL	B	700	-58.490	16.807	83.821	1.00	30.05
11704	O	VAL	B	700	-58.385	17.888	83.250	1.00	30.40
11705	N	GLY	B	701	-58.915	15.720	83.191	1.00	29.65
11706	CA	GLY	B	701	-59.385	15.797	81.816	1.00	28.66
11707	C	GLY	B	701	-58.343	16.017	80.740	1.00	28.50
11708	O	GLY	B	701	-58.616	16.656	79.710	1.00	29.25
11709	N	VAL	B	702	-57.144	15.497	80.938	1.00	27.69
11710	CA	VAL	B	702	-56.148	15.614	79.882	1.00	27.99
11711	CB	VAL	B	702	-54.795	16.145	80.393	1.00	27.91
11712	CG1	VAL	B	702	-54.651	15.831	81.835	1.00	30.45
11713	CG2	VAL	B	702	-53.636	15.576	79.583	1.00	27.98
11714	C	VAL	B	702	-56.008	14.286	79.157	1.00	27.58
11715	O	VAL	B	702	-55.928	13.218	79.777	1.00	27.62
11716	N	ASP	B	703	-56.035	14.362	77.838	1.00	26.84
11717	CA	ASP	B	703	-55.941	13.191	77.009	1.00	27.00
11718	CB	ASP	B	703	-56.685	13.401	75.689	1.00	26.61
11719	CG	ASP	B	703	-56.669	12.151	74.820	1.00	28.36
11720	OD1	ASP	B	703	-56.231	12.229	73.648	1.00	29.70

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FIGURE 3 HV

A	B	C	D	E	F	G	H	I	J
11721	OD2	ASP	B	703	-57.050	11.037	75.242	1.00	28.34
11722	C	ASP	B	703	-54.468	12.927	76.741	1.00	26.68
11723	O	ASP	B	703	-53.685	13.868	76.562	1.00	27.08
11724	N	PHE	B	704	-54.086	11.656	76.706	1.00	25.57
11725	CA	PHE	B	704	-52.683	11.307	76.492	1.00	25.16
11726	CB	PHE	B	704	-51.912	11.325	77.829	1.00	24.13
11727	CG	PHE	B	704	-52.535	10.459	78.873	1.00	23.39
11728	CD1	PHE	B	704	-52.062	9.175	79.101	1.00	21.02
11729	CE1	PHE	B	704	-52.640	8.371	80.034	1.00	20.61
11730	CZ	PHE	B	704	-53.741	8.822	80.761	1.00	20.93
11731	CE2	PHE	B	704	-54.237	10.090	80.538	1.00	21.66
11732	CD2	PHE	B	704	-53.638	10.905	79.590	1.00	21.85
11733	C	PHE	B	704	-52.655	9.919	75.907	1.00	25.36
11734	O	PHE	B	704	-53.671	9.236	75.908	1.00	25.18
11735	N	GLN	B	705	-51.496	9.505	75.406	1.00	25.90
11736	CA	GLN	B	705	-51.319	8.160	74.871	1.00	26.19
11737	CB	GLN	B	705	-50.410	8.200	73.660	1.00	26.63
11738	CG	GLN	B	705	-50.825	9.215	72.654	1.00	30.83
11739	CD	GLN	B	705	-52.008	8.760	71.880	1.00	34.97
11740	CE1	GLN	B	705	-53.039	9.419	71.884	1.00	37.84
11741	NE2	GLN	B	705	-51.870	7.627	71.194	1.00	38.25
11742	C	GLN	B	705	-50.667	7.261	75.904	1.00	25.75
11743	O	GLN	B	705	-49.761	7.691	76.617	1.00	25.97
11744	N	ALA	B	706	-51.104	6.010	75.973	1.00	24.70
11745	CA	ALA	B	706	-50.492	5.076	76.906	1.00	24.31
11746	CB	ALA	B	706	-51.415	4.830	78.101	1.00	23.90
11747	C	ALA	B	706	-50.139	3.746	76.240	1.00	23.82
11748	O	ALA	B	706	-50.665	3.390	75.192	1.00	23.72
11749	N	MET	B	707	-49.202	3.041	76.851	1.00	23.07
11750	CA	MET	B	707	-48.905	1.680	76.481	1.00	21.51
11751	CB	MET	B	707	-47.860	1.633	75.378	1.00	22.13
11752	CG	MET	B	707	-47.485	0.215	74.945	1.00	21.18
11753	SD	MET	B	707	-48.900	-0.708	74.359	1.00	21.84
11754	CE	MET	B	707	-49.333	0.205	72.848	1.00	20.68
11755	C	MET	B	707	-48.381	0.983	77.711	1.00	21.21
11756	O	MET	B	707	-47.397	1.420	78.309	1.00	20.81
11757	N	TRP	B	708	-49.043	-0.092	78.124	1.00	20.75
11758	CA	TRP	B	708	-48.482	-0.906	79.182	1.00	20.19
11759	CB	TRP	B	708	-49.562	-1.433	80.127	1.00	19.59
11760	CG	TRP	B	708	-50.393	-2.489	79.545	1.00	20.81
11761	CD1	TRP	B	708	-50.052	-3.802	79.386	1.00	21.15
11762	NE1	TRP	B	708	-51.083	-4.485	78.793	1.00	20.70
11763	CE2	TRP	B	708	-52.116	-3.615	78.552	1.00	19.88
11764	CD2	TRP	B	708	-51.716	-2.350	79.011	1.00	20.38
11765	CE3	TRP	B	708	-52.614	-1.275	78.884	1.00	19.56
11766	CZ3	TRP	B	708	-53.837	-1.500	78.317	1.00	19.59
11767	CH2	TRP	B	708	-54.209	-2.782	77.868	1.00	19.43
11768	CZ2	TRP	B	708	-53.368	-3.845	77.979	1.00	19.34
11769	C	TRP	B	708	-47.779	-2.035	78.447	1.00	20.09
11770	O	TRP	B	708	-48.099	-2.289	77.290	1.00	19.23
11771	N	TYR	B	709	-46.797	-2.667	79.093	1.00	20.28

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**FIGURE 3 HW**

A	B	C	D	E	F	G	H	I	J
11772	CA	TYR	B	709	-46.100	-3.838	78.526	1.00	20.63
11773	CB	TYR	B	709	-44.627	-3.558	78.185	1.00	20.56
11774	CG	TYR	B	709	-44.559	-2.898	76.860	1.00	19.84
11775	CD1	TYR	B	709	-44.767	-3.636	75.697	1.00	20.28
11776	CE1	TYR	B	709	-44.775	-3.035	74.461	1.00	19.85
11777	CZ	TYR	B	709	-44.565	-1.685	74.371	1.00	19.86
11778	OH	TYR	B	709	-44.574	-1.101	73.136	1.00	22.81
11779	CE2	TYR	B	709	-44.349	-0.923	75.504	1.00	20.72
11780	CD2	TYR	B	709	-44.356	-1.533	76.750	1.00	20.59
11781	C	TYR	B	709	-46.226	-4.983	79.484	1.00	20.70
11782	O	TYR	B	709	-45.549	-5.038	80.518	1.00	21.14
11783	N	THR	B	710	-47.137	-5.883	79.141	1.00	21.25
11784	CA	THR	B	710	-47.445	-7.024	79.962	1.00	21.25
11785	CB	THR	B	710	-48.380	-7.953	79.229	1.00	21.37
11786	OG1	THR	B	710	-49.648	-7.307	79.012	1.00	23.03
11787	CG2	THR	B	710	-48.689	-9.129	80.132	1.00	20.84
11788	C	THR	B	710	-46.209	-7.831	80.348	1.00	21.64
11789	O	THR	B	710	-45.524	-8.376	79.485	1.00	20.62
11790	N	ASP	B	711	-45.962	-7.910	81.658	1.00	21.81
11791	CA	ASP	B	711	-44.898	-8.742	82.220	1.00	21.69
11792	CB	ASP	B	711	-45.033	-10.195	81.760	1.00	21.54
11793	CG	ASP	B	711	-46.143	-10.910	82.466	1.00	22.07
11794	OD1	ASP	B	711	-46.391	-12.086	82.139	1.00	25.01
11795	OD2	ASP	B	711	-46.829	-10.388	83.367	1.00	22.35
11796	C	ASP	B	711	-43.514	-8.254	81.928	1.00	21.52
11797	O	ASP	B	711	-42.540	-8.946	82.237	1.00	21.95
11798	N	GLU	B	712	-43.391	-7.084	81.320	1.00	21.74
11799	CA	GLU	B	712	-42.044	-6.549	81.114	1.00	22.19
11800	CB	GLU	B	712	-41.981	-5.609	79.929	1.00	22.12
11801	CG	GLU	B	712	-42.177	-6.311	78.603	1.00	23.30
11802	CD	GLU	B	712	-41.056	-7.288	78.295	1.00	24.89
11803	OE1	GLU	B	712	-41.288	-8.517	78.332	1.00	24.79
11804	OE2	GLU	B	712	-39.940	-6.828	77.996	1.00	26.46
11805	C	GLU	B	712	-41.557	-5.842	82.378	1.00	22.56
11806	O	GLU	B	712	-42.365	-5.440	83.211	1.00	22.17
11807	N	ASP	B	713	-40.237	-5.715	82.529	1.00	23.00
11808	CA	ASP	B	713	-39.697	-5.030	83.696	1.00	23.22
11809	CB	ASP	B	713	-38.779	-5.928	84.524	1.00	22.79
11810	CG	ASP	B	713	-37.508	-6.282	83.814	1.00	23.44
11811	OD1	ASP	B	713	-36.781	-7.146	84.337	1.00	26.49
11812	OD2	ASP	B	713	-37.115	-5.729	82.771	1.00	23.72
11813	C	ASP	B	713	-39.069	-3.705	83.306	1.00	23.04
11814	O	ASP	B	713	-39.365	-3.180	82.246	1.00	22.35
11815	N	HIS	B	714	-38.218	-3.163	84.168	1.00	23.71
11816	CA	HIS	B	714	-37.661	-1.825	83.958	1.00	24.48
11817	CB	HIS	B	714	-36.754	-1.429	85.132	1.00	24.46
11818	CG	HIS	B	714	-36.548	0.048	85.238	1.00	25.34
11819	ND1	HIS	B	714	-37.591	0.944	85.168	1.00	26.61
11820	CE1	HIS	B	714	-37.126	2.171	85.268	1.00	25.20
11821	NE2	HIS	B	714	-35.816	2.107	85.401	1.00	27.88
11822	CD2	HIS	B	714	-35.426	0.790	85.370	1.00	27.76

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**FIGURE 3 HX**

A	B	C	D	E	F	G	H	I	J
11823	C	HIS	B	714	-36.938	-1.613	82.639	1.00	24.78
11824	O	HIS	B	714	-36.947	-0.524	82.089	1.00	25.49
11825	N	GLY	B	715	-36.297	-2.653	82.123	1.00	25.54
11826	CA	GLY	B	715	-35.611	-2.519	80.855	1.00	25.38
11827	C	GLY	B	715	-36.467	-2.725	79.611	1.00	25.11
11829	O	GLY	B	715	-36.037	-2.346	78.533	1.00	24.63
11829	N	ILE	B	716	-37.669	-3.297	79.762	1.00	25.14
11830	CA	ILE	B	716	-38.542	-3.599	78.625	1.00	25.32
11831	CB	ILE	B	716	-39.311	-2.336	78.151	1.00	25.99
11832	CG1	ILE	B	716	-40.025	-1.689	79.353	1.00	25.69
11833	CD1	ILE	B	716	-40.970	-0.580	78.995	1.00	25.63
11834	CG2	ILE	B	716	-40.290	-2.705	77.023	1.00	22.30
11835	C	ILE	B	716	-37.675	-4.115	77.519	1.00	26.05
11836	O	ILE	B	716	-37.685	-3.606	76.395	1.00	26.00
11837	N	ALA	B	717	-36.932	-5.159	77.851	1.00	27.17
11838	CA	ALA	B	717	-35.891	-5.655	76.982	1.00	28.36
11839	CB	ALA	B	717	-34.554	-5.691	77.758	1.00	29.30
11840	C	ALA	B	717	-36.146	-6.995	76.307	1.00	29.08
11841	O	ALA	B	717	-35.255	-7.502	75.629	1.00	29.47
11842	N	SER	B	718	-37.314	-7.604	76.511	1.00	28.91
11843	CA	SER	B	718	-37.601	-8.795	75.737	1.00	29.39
11844	CB	SER	B	718	-39.074	-9.196	75.878	1.00	29.52
11845	OG	SER	B	718	-39.357	-9.608	77.204	1.00	34.20
11846	C	SER	B	718	-37.356	-8.409	74.293	1.00	28.23
11847	O	SER	B	718	-37.622	-7.288	73.891	1.00	29.25
11848	N	SER	B	719	-36.893	-9.333	73.482	1.00	27.65
11849	CA	SER	B	719	-36.711	-9.023	72.065	1.00	27.04
11850	CB	SER	B	719	-36.265	-10.261	71.277	1.00	27.06
11851	OG	SER	B	719	-36.278	-9.967	69.882	1.00	29.49
11852	C	SER	B	719	-37.959	-8.400	71.411	1.00	25.40
11853	O	SER	B	719	-37.870	-7.392	70.750	1.00	25.93
11854	N	THR	B	720	-39.123	-8.993	71.585	1.00	24.04
11855	CA	THR	B	720	-40.297	-8.452	70.913	1.00	22.83
11856	CB	THR	B	720	-41.410	-9.492	70.864	1.00	23.35
11857	OG1	THR	B	720	-41.764	-9.841	72.211	1.00	21.44
11858	CG2	THR	B	720	-40.905	-10.789	70.212	1.00	21.97
11859	C	THR	B	720	-40.859	-7.182	71.539	1.00	22.49
11860	O	THR	B	720	-41.493	-6.385	70.854	1.00	21.74
11861	N	ALA	B	721	-40.657	-7.006	72.837	1.00	21.92
11862	CA	ALA	B	721	-41.153	-5.822	73.494	1.00	21.78
11863	CB	ALA	B	721	-41.192	-6.010	74.993	1.00	21.88
11864	C	ALA	B	721	-40.238	-4.687	73.135	1.00	21.73
11865	O	ALA	B	721	-40.673	-3.570	72.946	1.00	22.65
11866	N	HIS	B	722	-38.954	-4.972	73.026	1.00	21.57
11867	CA	HIS	B	722	-38.021	-3.930	72.682	1.00	21.04
11868	CB	HIS	B	722	-36.600	-4.479	72.664	1.00	21.05
11869	CG	HIS	B	722	-35.612	-3.558	72.039	1.00	19.68
11870	ND1	HIS	B	722	-35.006	-2.538	72.737	1.00	22.51
11871	CE1	HIS	B	722	-34.161	-1.902	71.937	1.00	21.88
11872	NE2	HIS	B	722	-34.209	-2.469	70.744	1.00	21.58
11873	CD2	HIS	B	722	-35.105	-3.511	70.783	1.00	21.16

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**FIGURE 3 HY**

A	B	C	D	E	F	G	H	I	J
11874	C	HIS	B	722	-38.358	-3.346	71.324	1.00	20.87
11875	O	HIS	B	722	-38.406	-2.134	71.153	1.00	19.87
11876	N	GLN	B	723	-38.578	-4.225	70.352	1.00	21.21
11877	CA	GLN	B	723	-38.908	-3.790	69.000	1.00	21.55
11878	CB	GLN	B	723	-38.942	-4.997	68.076	1.00	21.92
11879	CG	GLN	B	723	-37.624	-5.736	68.007	1.00	22.78
11880	CD	GLN	B	723	-37.721	-6.987	67.167	1.00	24.29
11881	OE1	GLN	B	723	-38.058	-6.918	65.984	1.00	27.58
11882	NE2	GLN	B	723	-37.435	-8.132	67.769	1.00	21.70
11883	C	GLN	B	723	-40.249	-3.057	68.943	1.00	21.47
11884	O	GLN	B	723	-40.413	-2.103	68.184	1.00	21.50
11885	N	HIS	B	724	-41.188	-3.491	69.778	1.00	20.78
11886	CA	HIS	B	724	-42.523	-2.911	69.812	1.00	20.65
11887	CB	HIS	B	724	-43.445	-3.800	70.654	1.00	20.00
11888	CG	HIS	B	724	-44.902	-3.560	70.418	1.00	18.84
11889	ND1	HIS	B	724	-45.612	-2.569	71.064	1.00	19.92
11890	CE1	HIS	B	724	-46.866	-2.585	70.645	1.00	17.53
11891	NE2	HIS	B	724	-46.996	-3.565	69.771	1.00	17.21
11892	CD2	HIS	B	724	-45.787	-4.191	69.615	1.00	15.78
11893	C	HIS	B	724	-42.533	-1.503	70.409	1.00	21.09
11894	O	HIS	B	724	-43.173	-0.603	69.870	1.00	21.79
11895	N	ILE	B	725	-41.853	-1.306	71.533	1.00	20.56
11896	CA	ILE	B	725	-41.890	0.014	72.136	1.00	20.54
11897	CB	ILE	B	725	-41.319	0.009	73.561	1.00	20.29
11898	CG1	ILE	B	725	-41.542	1.368	74.222	1.00	18.92
11899	CD1	ILE	B	725	-40.936	1.452	75.618	1.00	20.02
11900	CG2	ILE	B	725	-39.827	-0.372	73.551	1.00	20.46
11901	C	ILE	B	725	-41.211	1.045	71.221	1.00	20.60
11902	O	ILE	B	725	-41.759	2.115	70.991	1.00	20.39
11903	N	TYR	B	726	-40.055	0.702	70.661	1.00	20.43
11904	CA	TYR	B	726	-39.371	1.603	69.741	1.00	20.55
11905	CB	TYR	B	726	-37.958	1.100	69.426	1.00	20.49
11906	CG	TYR	B	726	-37.053	1.454	70.565	1.00	21.28
11907	CD1	TYR	B	726	-36.745	0.525	71.568	1.00	20.93
11908	CE1	TYR	B	726	-35.961	0.897	72.636	1.00	22.34
11909	CZ	TYR	B	726	-35.494	2.211	72.700	1.00	22.45
11910	OH	TYR	B	726	-34.705	2.628	73.723	1.00	24.15
11911	CE2	TYR	B	726	-35.813	3.128	71.742	1.00	20.64
11912	CD2	TYR	B	726	-36.594	2.765	70.706	1.00	19.99
11913	C	TYR	B	726	-40.195	1.857	68.482	1.00	20.85
11914	O	TYR	B	726	-40.174	2.961	67.917	1.00	21.68
11915	N	THR	B	727	-40.940	0.844	68.065	1.00	20.74
11916	CA	THR	B	727	-41.820	0.970	66.927	1.00	20.32
11917	CB	THR	B	727	-42.397	-0.412	66.508	1.00	20.53
11918	OG1	THR	B	727	-41.372	-1.229	65.929	1.00	20.62
11919	CG2	THR	B	727	-43.383	-0.250	65.341	1.00	18.90
11920	C	THR	B	727	-42.943	1.913	67.344	1.00	20.94
11921	O	THR	B	727	-43.314	2.827	66.605	1.00	20.27
11922	N	HIS	B	728	-43.480	1.698	68.545	1.00	21.17
11923	CA	HIS	B	728	-44.569	2.530	69.002	1.00	21.72
11924	CB	HIS	B	728	-45.181	1.959	70.268	1.00	21.45

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**FIGURE 3 HZ**

A	B	C	D	E	F	G	H	I	J
11925	CG	HIS	B	728	-46.580	2.430	70.509	1.00	21.44
11926	ND1	HIS	B	728	-47.604	2.170	69.625	1.00	20.01
11927	CE1	HIS	B	728	-48.719	2.716	70.075	1.00	19.80
11928	NE2	HIS	B	728	-48.451	3.329	71.218	1.00	19.19
11929	CD2	HIS	B	728	-47.117	3.179	71.503	1.00	19.94
11930	C	HIS	B	728	-44.111	3.986	69.219	1.00	22.77
11931	O	HIS	B	728	-44.811	4.943	68.879	1.00	23.12
11932	N	MET	B	729	-42.919	4.158	69.772	1.00	23.36
11933	CA	MET	B	729	-42.424	5.505	69.999	1.00	23.86
11934	CB	MET	B	729	-41.213	5.471	70.930	1.00	23.04
11935	CG	MET	B	729	-41.611	5.015	72.310	1.00	24.70
11936	SD	MET	B	729	-40.337	5.244	73.518	1.00	27.86
11937	CE	MET	B	729	-39.049	4.336	72.788	1.00	24.03
11938	C	MET	B	729	-42.133	6.255	68.699	1.00	23.07
11939	O	MET	B	729	-42.338	7.458	68.616	1.00	23.08
11940	N	SER	B	730	-41.654	5.554	67.685	1.00	23.19
11941	CA	SER	B	730	-41.398	6.236	66.430	1.00	23.64
11942	CB	SER	B	730	-40.686	5.335	65.445	1.00	23.27
11943	OG	SER	B	730	-39.613	4.679	66.084	1.00	22.94
11944	C	SER	B	730	-42.665	6.817	65.805	1.00	24.48
11945	O	SER	B	730	-42.638	7.933	65.276	1.00	25.05
11946	N	HIS	B	731	-43.772	6.082	65.871	1.00	25.18
11947	CA	HIS	B	731	-45.017	6.579	65.300	1.00	26.18
11948	CB	HIS	B	731	-46.156	5.573	65.425	1.00	26.41
11949	CG	HIS	B	731	-46.022	4.376	64.543	1.00	29.11
11950	ND1	HIS	B	731	-46.233	3.095	65.005	1.00	31.92
11951	CE1	HIS	B	731	-46.058	2.234	64.018	1.00	32.79
11952	NE2	HIS	B	731	-45.750	2.913	62.927	1.00	34.46
11953	CD2	HIS	B	731	-45.725	4.256	63.229	1.00	32.74
11954	C	HIS	B	731	-45.443	7.792	66.064	1.00	25.82
11955	O	HIS	B	731	-45.874	8.763	65.485	1.00	26.25
11956	N	PHE	B	732	-45.378	7.708	67.380	1.00	26.04
11957	CA	PHE	B	732	-45.778	8.826	68.192	1.00	26.42
11958	CB	PHE	B	732	-45.669	8.494	69.667	1.00	26.65
11959	CG	PHE	B	732	-46.009	9.643	70.557	1.00	26.39
11960	CD1	PHE	B	732	-47.320	9.903	70.889	1.00	24.34
11961	CE1	PHE	B	732	-47.638	10.966	71.694	1.00	26.55
11962	CZ	PHE	B	732	-46.651	11.795	72.190	1.00	25.55
11963	CE2	PHE	B	732	-45.338	11.553	71.869	1.00	26.82
11964	CD2	PHE	B	732	-45.020	10.481	71.037	1.00	26.49
11965	C	PHE	B	732	-44.879	10.002	67.868	1.00	26.82
11966	O	PHE	B	732	-45.351	11.105	67.691	1.00	26.14
11967	N	ILE	B	733	-43.579	9.767	67.777	1.00	27.54
11968	CA	ILE	B	733	-42.705	10.880	67.455	1.00	28.71
11969	CB	ILE	B	733	-41.221	10.540	67.691	1.00	28.65
11970	CG1	ILE	B	733	-40.882	10.734	69.165	1.00	29.46
11971	CD1	ILE	B	733	-40.854	12.189	69.598	1.00	31.65
11972	CG2	ILE	B	733	-40.335	11.474	66.899	1.00	28.29
11973	C	ILE	B	733	-42.954	11.426	66.042	1.00	29.24
11974	O	ILE	B	733	-42.991	12.636	65.855	1.00	29.00
11975	N	LYS	B	734	-43.150	10.560	65.053	1.00	30.15



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**FIGURE 3 IA**

A	B	C	D	E	F	G	H	I	J
11976	CA	LYS	B	734	-43.375	11.048	63.689	1.00	31.39
11977	CB	LYS	B	734	-43.367	9.915	62.657	1.00	31.04
11978	CG	LYS	B	734	-42.257	8.908	62.869	1.00	32.61
11979	CD	LYS	B	734	-41.564	8.476	61.598	1.00	33.79
11980	CE	LYS	B	734	-42.532	8.011	60.537	1.00	37.05
11981	NZ	LYS	B	734	-41.851	7.565	59.261	1.00	36.85
11982	C	LYS	B	734	-44.657	11.880	63.568	1.00	32.09
11983	O	LYS	B	734	-44.669	12.949	62.951	1.00	31.80
11984	N	GLN	B	735	-45.731	11.405	64.182	1.00	32.99
11985	CA	GLN	B	735	-47.008	12.096	64.082	1.00	34.22
11986	CB	GLN	B	735	-48.157	11.198	64.554	1.00	34.31
11987	CG	GLN	B	735	-48.815	11.597	65.853	1.00	37.67
11988	CD	GLN	B	735	-49.816	12.716	65.650	1.00	42.32
11989	OE1	GLN	B	735	-50.280	12.941	64.531	1.00	45.22
11990	NE2	GLN	B	735	-50.142	13.428	66.720	1.00	43.62
11991	C	GLN	B	735	-46.972	13.435	64.809	1.00	34.36
11992	O	GLN	B	735	-47.587	14.399	64.353	1.00	34.67
11993	N	CYS	B	736	-46.249	13.518	65.923	1.00	34.24
11994	CA	CYS	B	736	-46.107	14.813	66.584	1.00	35.23
11995	CB	CYS	B	736	-45.595	14.666	68.020	1.00	35.10
11996	SG	CYS	B	736	-44.743	16.115	68.740	1.00	38.88
11997	C	CYS	B	736	-45.234	15.789	65.772	1.00	34.41
11998	O	CYS	B	736	-45.438	16.984	65.840	1.00	34.31
11999	N	PHE	B	737	-44.294	15.273	64.983	1.00	34.75
12000	CA	PHE	B	737	-43.450	16.131	64.139	1.00	34.40
12001	CB	PHE	B	737	-42.009	15.601	64.095	1.00	33.38
12002	CG	PHE	B	737	-41.208	15.857	65.349	1.00	30.63
12003	CD1	PHE	B	737	-41.683	16.682	66.341	1.00	28.24
12004	CE1	PHE	B	737	-40.943	16.919	67.481	1.00	25.79
12005	CZ	PHE	B	737	-39.713	16.328	67.645	1.00	25.71
12006	CE2	PHE	B	737	-39.217	15.496	66.664	1.00	26.36
12007	CD2	PHE	B	737	-39.968	15.263	65.520	1.00	28.45
12008	C	PHE	B	737	-43.978	16.240	62.696	1.00	35.34
12009	O	PHE	B	737	-43.315	16.777	61.816	1.00	35.69
12010	N	SER	B	738	-45.170	15.721	62.442	1.00	36.90
12011	CA	SER	B	738	-45.736	15.701	61.090	1.00	38.41
12012	CB	SER	B	738	-46.161	17.102	60.619	1.00	38.34
12013	OG	SER	B	738	-46.998	17.693	61.588	1.00	37.87
12014	C	SER	B	738	-44.820	15.049	60.060	1.00	39.26
12015	O	SER	B	738	-44.673	15.545	58.945	1.00	39.61
12016	N	LEU	B	739	-44.204	13.941	60.442	1.00	40.66
12017	CA	LEU	B	739	-43.374	13.172	59.531	1.00	41.94
12018	CB	LEU	B	739	-42.096	12.730	60.227	1.00	41.77
12019	CG	LEU	B	739	-41.228	13.891	60.718	1.00	41.94
12020	CD1	LEU	B	739	-39.947	13.388	61.369	1.00	40.29
12021	CD2	LEU	B	739	-40.923	14.844	59.564	1.00	41.86
12022	C	LEU	B	739	-44.197	11.967	59.085	1.00	43.28
12023	O	LEU	B	739	-44.712	11.203	59.920	1.00	44.06
12024	N	PRO	B	740	-44.325	11.801	57.772	1.00	43.94
12025	CA	PRO	B	740	-45.178	10.760	57.190	1.00	44.31
12026	CB	PRO	B	740	-45.276	11.180	55.711	1.00	44.53

**REPLACEMENT SHEET**  
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**FIGURE 3 IB**

A	B	C	D	E	F	G	H	I	J
12027	CG	PRO	B	740	-44.718	12.605	55.676	1.00	44.79
12028	CD	PRO	B	740	-43.652	12.609	56.739	1.00	44.27
12029	C	PRO	B	740	-44.593	9.358	57.300	1.00	44.50
12030	O	PRO	B	740	-43.439	9.146	56.939	1.00	44.74
12031	O7	NAG	B	971	-1.496	-23.139	73.513	1.00	72.40
12032	C7	NAG	B	971	-1.548	-21.927	73.306	1.00	72.39
12033	C8	NAG	B	971	-2.801	-21.131	73.509	1.00	72.68
12034	N2	NAG	B	971	-0.504	-21.175	72.970	1.00	71.31
12035	C2	NAG	B	971	0.827	-21.683	72.727	1.00	71.53
12036	C1	NAG	B	971	1.680	-20.515	72.241	1.00	69.94
12037	C3	NAG	B	971	1.423	-22.304	73.992	1.00	72.07
12038	O3	NAG	B	971	0.785	-23.540	74.358	1.00	72.11
12039	C4	NAG	B	971	2.888	-22.628	73.783	1.00	72.70
12040	O4	NAG	B	971	3.429	-23.019	75.052	1.00	74.28
12041	C5	NAG	B	971	3.672	-21.451	73.212	1.00	72.39
12042	O5	NAG	B	971	3.036	-20.925	72.042	1.00	71.59
12043	C6	NAG	B	971	5.082	-21.916	72.857	1.00	73.22
12044	O6	NAG	B	971	5.405	-21.573	71.499	1.00	73.48
12045	O7	NAG	B1621		-28.592	-31.215	89.895	1.00	69.71
12046	C7	NAG	B1621		-28.880	-31.667	90.994	1.00	68.34
12047	C8	NAG	B1621		-27.985	-31.492	92.185	1.00	69.03
12048	N2	NAG	B1621		-30.029	-32.286	91.257	1.00	66.17
12049	C2	NAG	B1621		-31.055	-32.350	90.263	1.00	65.21
12050	C1	NAG	B1621		-31.508	-31.261	89.569	1.00	62.67
12051	C3	NAG	B1621		-30.675	-33.599	89.210	1.00	65.79
12052	O3	NAG	B1621		-30.191	-34.840	89.756	1.00	65.25
12053	C4	NAG	B1621		-31.936	-33.851	88.395	1.00	66.12
12054	O4	NAG	B1621		-31.714	-34.873	87.412	1.00	67.57
12055	C5	NAG	B1621		-32.398	-32.545	87.742	1.00	65.66
12056	O5	NAG	B1621		-32.641	-31.542	88.736	1.00	65.08
12057	C6	NAG	B1621		-33.668	-32.766	86.925	1.00	65.94
12058	O6	NAG	B1621		-34.816	-32.262	87.628	1.00	65.92
12059	O7	NAG	B2311		-0.221	-18.701	100.763	1.00	65.86
12060	C7	NAG	B2311		-1.001	-19.645	100.882	1.00	65.25
12061	C8	NAG	B2311		-1.035	-20.782	99.900	1.00	64.98
12062	N2	NAG	B2311		-1.828	-19.772	101.926	1.00	63.88
12063	C2	NAG	B2311		-1.895	-18.773	102.980	1.00	62.57
12064	C1	NAG	B2311		-3.171	-17.935	102.898	1.00	59.08
12065	C3	NAG	B2311		-1.797	-19.460	104.340	1.00	62.63
12066	O3	NAG	B2311		-0.532	-20.133	104.439	1.00	63.27
12067	C4	NAG	B2311		-1.973	-18.451	105.477	1.00	62.24
12068	O4	NAG	B2311		-2.095	-19.163	106.722	1.00	62.14
12069	C5	NAG	B2311		-3.204	-17.560	105.246	1.00	61.89
12070	O5	NAG	B2311		-3.193	-16.957	103.943	1.00	60.57
12071	C6	NAG	B2311		-3.305	-16.457	106.294	1.00	62.05
12072	O6	NAG	B2311		-2.385	-15.410	105.960	1.00	62.89
12073	O7	NAG	B2411		-31.170	-12.163	112.789	1.00	53.05
12074	C7	NAG	B2411		-31.967	-13.042	112.519	1.00	53.48
12075	C8	NAG	B2411		-31.539	-14.432	112.162	1.00	53.33
12076	N2	NAG	B2411		-33.271	-12.817	112.600	1.00	53.74
12077	C2	NAG	B2411		-33.726	-11.504	112.997	1.00	55.17

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**FIGURE 3 IC**

A	B	C	D	E	F	G	H	I	J
12078	C1	NAG	B2411		-34.243	-10.613	111.876	1.00	52.90
12079	C3	NAG	B2411		-34.820	-11.730	114.021	1.00	57.59
12080	O3	NAG	B2411		-34.303	-12.454	115.133	1.00	59.38
12081	C4	NAG	B2411		-35.323	-10.405	114.540	1.00	59.18
12082	O4	NAG	B2411		-36.434	-10.680	115.399	1.00	65.63
12083	C5	NAG	B2411		-35.736	-9.513	113.375	1.00	57.72
12084	O5	NAG	B2411		-34.649	-9.370	112.457	1.00	54.84
12085	C6	NAG	B2411		-36.157	-8.144	113.878	1.00	57.33
12086	O6	NAG	B2411		-36.390	-7.301	112.749	1.00	58.35
12087	O7	NAG	B2412		-39.628	-7.940	114.970	1.00	82.70
12088	C7	NAG	B2412		-39.201	-8.987	115.428	1.00	82.55
12089	C8	NAG	B2412		-39.649	-10.325	114.904	1.00	82.82
12090	N2	NAG	B2412		-38.250	-9.010	116.361	1.00	81.55
12091	C2	NAG	B2412		-37.736	-10.262	116.879	1.00	80.85
12092	C1	NAG	B2412		-36.220	-10.326	116.723	1.00	77.61
12093	C3	NAG	B2412		-38.144	-10.408	118.339	1.00	81.59
12094	O3	NAG	B2412		-39.575	-10.458	118.443	1.00	82.35
12095	C4	NAG	B2412		-37.514	-11.666	118.926	1.00	81.41
12096	O4	NAG	B2412		-37.862	-11.805	120.313	1.00	81.61
12097	C5	NAG	B2412		-36.003	-11.573	118.748	1.00	80.50
12098	O5	NAG	B2412		-35.713	-11.506	117.351	1.00	80.11
12099	C6	NAG	B2412		-35.302	-12.783	119.349	1.00	80.52
12100	O6	NAG	B2412		-35.982	-13.973	118.934	1.00	79.91
12101	O7	NAG	B2931		-24.335	-30.051	115.266	1.00	75.19
12102	C7	NAG	B2931		-24.419	-30.370	114.085	1.00	74.43
12103	C8	NAG	B2931		-23.672	-31.529	113.485	1.00	75.00
12104	N2	NAG	B2931		-25.246	-29.735	113.262	1.00	72.23
12105	C2	NAG	B2931		-26.042	-28.629	113.752	1.00	70.22
12106	C1	NAG	B2931		-25.770	-27.339	112.982	1.00	66.92
12107	C3	NAG	B2931		-27.493	-29.073	113.627	1.00	69.93
12108	O3	NAG	B2931		-27.724	-30.212	114.460	1.00	70.63
12109	C4	NAG	B2931		-28.425	-27.952	114.027	1.00	69.60
12110	O4	NAG	B2931		-29.789	-28.385	113.890	1.00	70.12
12111	C5	NAG	B2931		-28.126	-26.758	113.134	1.00	68.85
12112	O5	NAG	B2931		-26.762	-26.347	113.283	1.00	68.61
12113	C6	NAG	B2931		-29.024	-25.590	113.510	1.00	68.50
12114	O6	NAG	B2931		-28.254	-24.638	114.253	1.00	67.60
12115	O7	NAG	B3331		-23.192	17.701	106.780	1.00	62.25
12116	C7	NAG	B3331		-23.032	16.659	107.397	1.00	61.75
12117	C8	NAG	B3331		-21.667	16.169	107.783	1.00	62.11
12118	N2	NAG	B3331		-24.062	15.939	107.838	1.00	60.45
12119	C2	NAG	B3331		-25.414	16.360	107.514	1.00	59.68
12120	C1	NAG	B3331		-26.201	15.190	106.947	1.00	55.92
12121	C3	NAG	B3331		-26.163	16.929	108.717	1.00	60.28
12122	O3	NAG	B3331		-25.494	18.113	109.169	1.00	60.01
12123	C4	NAG	B3331		-27.609	17.272	108.333	1.00	60.83
12124	O4	NAG	B3331		-28.395	17.557	109.504	1.00	61.83
12125	C5	NAG	B3331		-28.283	16.161	107.520	1.00	60.34
12126	O5	NAG	B3331		-27.431	15.710	106.467	1.00	58.70
12127	C6	NAG	B3331		-29.573	16.667	106.876	1.00	61.21
12128	O6	NAG	B3331		-30.483	15.574	106.667	1.00	63.30

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**FIGURE 3 ID**

A	B	C	D	E	F	G	H	I	J
12129	N	ARG	C	14	-56.594	-17.508	55.235	1.00	59.31
12130	CA	ARG	C	14	-57.330	-18.684	54.673	1.00	59.15
12131	CB	ARG	C	14	-57.826	-19.576	55.819	1.00	59.77
12132	CG	ARG	C	14	-58.370	-20.947	55.414	1.00	61.80
12133	CD	ARG	C	14	-57.914	-22.079	56.340	1.00	65.74
12134	NE	ARG	C	14	-58.993	-23.002	56.706	1.00	68.29
12135	CZ	ARG	C	14	-59.063	-23.632	57.878	1.00	70.05
12136	NH1	ARG	C	14	-58.114	-23.443	58.789	1.00	71.17
12137	NH2	ARG	C	14	-60.071	-24.455	58.145	1.00	70.83
12138	C	ARG	C	14	-58.489	-18.232	53.774	1.00	58.04
12139	O	ARG	C	14	-59.531	-18.887	53.706	1.00	58.12
12140	N	LYS	C	15	-58.301	-17.117	53.069	1.00	56.51
12141	CA	LYS	C	15	-59.362	-16.601	52.209	1.00	54.97
12142	CB	LYS	C	15	-59.460	-15.067	52.267	1.00	55.35
12143	CG	LYS	C	15	-58.142	-14.308	52.404	1.00	56.79
12144	CD	LYS	C	15	-58.366	-12.811	52.183	1.00	59.18
12145	CE	LYS	C	15	-57.194	-11.957	52.677	1.00	60.92
12146	NZ	LYS	C	15	-57.343	-11.519	54.106	1.00	61.81
12147	C	LYS	C	15	-59.268	-17.071	50.766	1.00	53.63
12148	O	LYS	C	15	-58.213	-17.484	50.292	1.00	53.86
12149	N	THR	C	16	-60.391	-17.003	50.067	1.00	51.93
12150	CA	THR	C	16	-60.428	-17.371	48.663	1.00	50.01
12151	CB	THR	C	16	-61.491	-18.445	48.422	1.00	50.09
12152	OG1	THR	C	16	-62.747	-17.988	48.938	1.00	50.53
12153	CG2	THR	C	16	-61.190	-19.676	49.260	1.00	49.69
12154	C	THR	C	16	-60.767	-16.130	47.877	1.00	48.35
12155	O	THR	C	16	-61.000	-15.073	48.455	1.00	48.10
12156	N	TYR	C	17	-60.770	-16.256	46.559	1.00	46.31
12157	CA	TYR	C	17	-61.136	-15.154	45.694	1.00	44.36
12158	CB	TYR	C	17	-60.450	-15.330	44.340	1.00	44.44
12159	CG	TYR	C	17	-60.674	-14.211	43.357	1.00	43.09
12160	CD1	TYR	C	17	-59.936	-13.045	43.432	1.00	43.17
12161	CE1	TYR	C	17	-60.135	-12.013	42.537	1.00	42.32
12162	CZ	TYR	C	17	-61.079	-12.148	41.547	1.00	42.01
12163	OH	TYR	C	17	-61.274	-11.122	40.655	1.00	40.75
12164	CE2	TYR	C	17	-61.820	-13.306	41.446	1.00	42.15
12165	CD2	TYR	C	17	-61.614	-14.327	42.349	1.00	41.90
12166	C	TYR	C	17	-62.658	-15.203	45.568	1.00	43.53
12167	O	TYR	C	17	-63.202	-16.089	44.922	1.00	43.35
12168	N	THR	C	18	-63.347	-14.258	46.196	1.00	42.57
12169	CA	THR	C	18	-64.811	-14.259	46.211	1.00	41.95
12170	CB	THR	C	18	-65.323	-13.527	47.451	1.00	41.87
12171	OG1	THR	C	18	-65.053	-12.127	47.308	1.00	42.07
12172	CG2	THR	C	18	-64.537	-13.949	48.699	1.00	42.05
12173	C	THR	C	18	-65.501	-13.628	45.010	1.00	41.61
12174	O	THR	C	18	-64.872	-13.041	44.132	1.00	41.43
12175	N	LEU	C	19	-66.824	-13.748	45.011	1.00	41.36
12176	CA	LEU	C	19	-67.656	-13.138	43.993	1.00	41.21
12177	CB	LEU	C	19	-69.106	-13.630	44.091	1.00	40.58
12178	CG	LEU	C	19	-70.049	-12.956	43.083	1.00	40.27
12179	CD1	LEU	C	19	-69.561	-13.169	41.653	1.00	37.72

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**FIGURE 3 IE**

A	B	C	D	E	F	G	H	I	J
12180	CD2	LEU	C	19	-71.488	-13.411	43.242	1.00	38.11
12181	C	LEU	C	19	-67.599	-11.634	44.210	1.00	41.21
12182	O	LEU	C	19	-67.565	-10.861	43.260	1.00	41.21
12183	N	THR	C	20	-67.591	-11.233	45.474	1.00	41.41
12184	CA	THR	C	20	-67.487	-9.830	45.815	1.00	41.76
12185	CB	THR	C	20	-67.676	-9.631	47.295	1.00	41.53
12186	OG1	THR	C	20	-69.038	-9.903	47.632	1.00	42.25
12187	CG2	THR	C	20	-67.539	-8.183	47.627	1.00	41.82
12188	C	THR	C	20	-66.134	-9.283	45.388	1.00	42.26
12189	O	THR	C	20	-66.060	-8.192	44.817	1.00	42.44
12190	N	ASP	C	21	-65.066	-10.037	45.653	1.00	42.41
12191	CA	ASP	C	21	-63.732	-9.609	45.235	1.00	42.96
12192	CB	ASP	C	21	-62.702	-10.721	45.435	1.00	43.01
12193	CG	ASP	C	21	-62.481	-11.056	46.890	1.00	43.39
12194	OD1	ASP	C	21	-62.627	-10.156	47.740	1.00	44.65
12195	OD2	ASP	C	21	-62.170	-12.201	47.277	1.00	43.27
12196	C	ASP	C	21	-63.754	-9.208	43.769	1.00	43.05
12197	O	ASP	C	21	-63.363	-8.101	43.419	1.00	43.10
12198	N	TYR	C	22	-64.217	-10.124	42.922	1.00	43.50
12199	CA	TYR	C	22	-64.325	-9.900	41.481	1.00	43.70
12200	CB	TYR	C	22	-64.818	-11.179	40.792	1.00	43.69
12201	CG	TYR	C	22	-65.288	-10.957	39.370	1.00	43.01
12202	CD1	TYR	C	22	-64.396	-10.569	38.376	1.00	43.15
12203	CE1	TYR	C	22	-64.826	-10.350	37.070	1.00	43.76
12204	CZ	TYR	C	22	-66.169	-10.523	36.756	1.00	43.72
12205	OH	TYR	C	22	-66.602	-10.311	35.465	1.00	43.80
12206	CE2	TYR	C	22	-67.071	-10.910	37.732	1.00	42.34
12207	CD2	TYR	C	22	-66.627	-11.122	39.027	1.00	42.14
12208	C	TYR	C	22	-65.259	-8.749	41.112	1.00	44.08
12209	O	TYR	C	22	-65.041	-8.045	40.122	1.00	44.19
12210	N	LEU	C	23	-66.305	-8.557	41.896	1.00	44.48
12211	CA	LEU	C	23	-67.267	-7.525	41.562	1.00	45.38
12212	CB	LEU	C	23	-68.628	-7.829	42.189	1.00	44.86
12213	CG	LEU	C	23	-69.390	-9.010	41.584	1.00	44.42
12214	CD1	LEU	C	23	-70.828	-9.061	42.101	1.00	42.61
12215	CD2	LEU	C	23	-69.361	-8.937	40.062	1.00	42.28
12216	C	LEU	C	23	-66.780	-6.148	41.974	1.00	46.45
12217	O	LEU	C	23	-67.070	-5.157	41.313	1.00	46.55
12218	N	LYS	C	24	-66.035	-6.097	43.069	1.00	47.86
12219	CA	LYS	C	24	-65.533	-4.843	43.608	1.00	49.31
12220	CB	LYS	C	24	-65.686	-4.828	45.131	1.00	49.40
12221	CG	LYS	C	24	-67.133	-4.939	45.604	1.00	50.38
12222	CD	LYS	C	24	-68.020	-3.875	44.940	1.00	50.86
12223	CE	LYS	C	24	-69.486	-4.085	45.310	1.00	51.18
12224	NZ	LYS	C	24	-70.403	-3.015	44.800	1.00	50.26
12225	C	LYS	C	24	-64.076	-4.617	43.235	1.00	50.34
12226	O	LYS	C	24	-63.490	-3.592	43.585	1.00	50.81
12227	N	ASN	C	25	-63.480	-5.575	42.539	1.00	51.21
12228	CA	ASN	C	25	-62.108	-5.414	42.105	1.00	52.48
12229	CB	ASN	C	25	-61.998	-4.186	41.201	1.00	52.83
12230	CG	ASN	C	25	-62.701	-4.385	39.871	1.00	54.31

**REPLACEMENT SHEET**  
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**FIGURE 3 IF**

A	B	C	D	E	F	G	H	I	J
12231	OD1	ASN	C	25	-62.588	-5.444	39.257	1.00	56.23
12232	ND2	ASN	C	25	-63.436	-3.374	39.425	1.00	55.37
12233	C	ASN	C	25	-61.105	-5.318	43.256	1.00	53.03
12234	O	ASN	C	25	-60.083	-4.651	43.141	1.00	52.96
12235	N	THR	C	26	-61.402	-5.988	44.363	1.00	53.73
12236	CA	THR	C	26	-60.494	-6.011	45.494	1.00	54.61
12237	CB	THR	C	26	-60.865	-7.157	46.438	1.00	54.70
12238	OG1	THR	C	26	-62.056	-6.812	47.158	1.00	55.46
12239	CG2	THR	C	26	-59.817	-7.314	47.540	1.00	54.55
12240	C	THR	C	26	-59.048	-6.165	45.017	1.00	55.09
12241	O	THR	C	26	-58.162	-5.427	45.447	1.00	55.02
12242	N	TYR	C	27	-58.821	-7.111	44.111	1.00	55.59
12243	CA	TYR	C	27	-57.484	-7.356	43.584	1.00	56.25
12244	CB	TYR	C	27	-57.151	-8.849	43.652	1.00	55.96
12245	CG	TYR	C	27	-57.406	-9.426	45.028	1.00	54.73
12246	CD1	TYR	C	27	-56.587	-9.101	46.105	1.00	54.43
12247	CE1	TYR	C	27	-56.827	-9.618	47.369	1.00	52.54
12248	CZ	TYR	C	27	-57.900	-10.451	47.561	1.00	52.34
12249	OH	TYR	C	27	-58.160	-10.972	48.805	1.00	53.22
12250	CE2	TYR	C	27	-58.731	-10.774	46.513	1.00	52.33
12251	CD2	TYR	C	27	-58.481	-10.261	45.260	1.00	53.00
12252	C	TYR	C	27	-57.304	-6.783	42.180	1.00	56.99
12253	O	TYR	C	27	-57.593	-7.432	41.185	1.00	56.86
12254	N	ARG	C	28	-56.798	-5.555	42.134	1.00	58.45
12255	CA	ARG	C	28	-56.603	-4.798	40.899	1.00	59.78
12256	CB	ARG	C	28	-56.602	-3.298	41.215	1.00	60.24
12257	CG	ARG	C	28	-57.785	-2.515	40.686	1.00	62.82
12258	CD	ARG	C	28	-57.932	-1.118	41.292	1.00	66.38
12259	NE	ARG	C	28	-58.666	-1.151	42.558	1.00	69.47
12260	CZ	ARG	C	28	-59.184	-0.082	43.160	1.00	70.68
12261	NH1	ARG	C	28	-59.050	1.125	42.615	1.00	70.81
12262	NH2	ARG	C	28	-59.839	-0.220	44.310	1.00	70.59
12263	C	ARG	C	28	-55.302	-5.109	40.191	1.00	60.06
12264	O	ARG	C	28	-54.233	-5.064	40.791	1.00	59.89
12265	N	LEU	C	29	-55.395	-5.399	38.900	1.00	60.70
12266	CA	LEU	C	29	-54.210	-5.618	38.097	1.00	61.41
12267	CB	LEU	C	29	-54.540	-6.421	36.844	1.00	61.17
12268	CG	LEU	C	29	-54.629	-7.932	37.038	1.00	61.39
12269	CD1	LEU	C	29	-55.261	-8.591	35.823	1.00	61.58
12270	CD2	LEU	C	29	-53.252	-8.499	37.298	1.00	61.27
12271	C	LEU	C	29	-53.699	-4.250	37.699	1.00	62.14
12272	O	LEU	C	29	-54.407	-3.481	37.048	1.00	62.24
12273	N	LYS	C	30	-52.484	-3.927	38.121	1.00	62.82
12274	CA	LYS	C	30	-51.889	-2.660	37.741	1.00	63.41
12275	CB	LYS	C	30	-50.628	-2.383	38.567	1.00	63.28
12276	CG	LYS	C	30	-50.533	-0.964	39.122	1.00	64.04
12277	CD	LYS	C	30	-50.132	-0.957	40.598	1.00	64.72
12278	CE	LYS	C	30	-50.252	0.440	41.214	1.00	65.38
12279	NZ	LYS	C	30	-51.623	1.024	41.080	1.00	65.09
12280	C	LYS	C	30	-51.552	-2.737	36.260	1.00	63.67
12281	O	LYS	C	30	-51.233	-3.805	35.745	1.00	63.57

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**FIGURE 3 IG**

A	B	C	D	E	F	G	H	I	J
12282	N	LEU	C	31	-51.653	-1.608	35.575	1.00	64.38
12283	CA	LEU	C	31	-51.292	-1.534	34.167	1.00	65.35
12284	CB	LEU	C	31	-52.499	-1.151	33.299	1.00	65.22
12285	CG	LEU	C	31	-53.869	-1.831	33.385	1.00	65.26
12286	CD1	LEU	C	31	-54.681	-1.328	34.576	1.00	64.95
12287	CD2	LEU	C	31	-54.628	-1.569	32.102	1.00	65.03
12288	C	LEU	C	31	-50.235	-0.441	34.024	1.00	66.02
12289	O	LEU	C	31	-50.043	0.369	34.935	1.00	66.11
12290	N	TYR	C	32	-49.543	-0.422	32.893	1.00	66.68
12291	CA	TYR	C	32	-48.619	0.667	32.621	1.00	67.59
12292	CB	TYR	C	32	-47.159	0.282	32.874	1.00	67.51
12293	CG	TYR	C	32	-46.281	1.495	33.113	1.00	67.22
12294	CD1	TYR	C	32	-45.767	2.223	32.053	1.00	67.11
12295	CE1	TYR	C	32	-44.976	3.336	32.269	1.00	68.00
12296	CZ	TYR	C	32	-44.703	3.737	33.559	1.00	67.92
12297	OH	TYR	C	32	-43.919	4.845	33.780	1.00	68.81
12298	CE2	TYR	C	32	-45.207	3.032	34.629	1.00	67.41
12299	CD2	TYR	C	32	-45.994	1.924	34.402	1.00	66.89
12300	C	TYR	C	32	-48.819	1.121	31.192	1.00	68.31
12301	O	TYR	C	32	-48.103	0.705	30.285	1.00	68.18
12302	N	SER	C	33	-49.818	1.972	31.000	1.00	69.60
12303	CA	SER	C	33	-50.153	2.457	29.672	1.00	70.73
12304	CB	SER	C	33	-51.666	2.619	29.515	1.00	70.72
12305	OG	SER	C	33	-52.008	2.979	28.181	1.00	71.44
12306	C	SER	C	33	-49.459	3.773	29.395	1.00	71.43
12307	O	SER	C	33	-49.712	4.778	30.059	1.00	71.71
12308	N	LEU	C	34	-48.567	3.754	28.416	1.00	72.35
12309	CA	LEU	C	34	-47.866	4.956	28.015	1.00	73.17
12310	CB	LEU	C	34	-46.359	4.733	28.064	1.00	72.95
12311	CG	LEU	C	34	-45.856	3.406	27.505	1.00	72.50
12312	CD1	LEU	C	34	-45.844	3.422	25.989	1.00	71.40
12313	CD2	LEU	C	34	-44.472	3.128	28.047	1.00	72.03
12314	C	LEU	C	34	-48.300	5.318	26.609	1.00	73.94
12315	O	LEU	C	34	-48.922	4.514	25.917	1.00	73.98
12316	N	ARG	C	35	-47.988	6.538	26.201	1.00	74.87
12317	CA	ARG	C	35	-48.303	6.988	24.857	1.00	75.88
12318	CB	ARG	C	35	-49.614	7.789	24.823	1.00	75.99
12319	CG	ARG	C	35	-49.811	8.762	25.979	1.00	76.62
12320	CD	ARG	C	35	-51.037	9.673	25.839	1.00	77.67
12321	NE	ARG	C	35	-52.302	8.939	25.882	1.00	78.08
12322	CZ	ARG	C	35	-53.497	9.504	25.748	1.00	78.24
12323	NH1	ARG	C	35	-53.598	10.815	25.566	1.00	77.92
12324	NH2	ARG	C	35	-54.596	8.761	25.799	1.00	77.84
12325	C	ARG	C	35	-47.124	7.798	24.336	1.00	76.42
12326	O	ARG	C	35	-46.803	8.861	24.866	1.00	76.47
12327	N	TRP	C	36	-46.470	7.269	23.307	1.00	77.18
12328	CA	TRP	C	36	-45.283	7.894	22.741	1.00	77.77
12329	CB	TRP	C	36	-44.548	6.913	21.828	1.00	77.64
12330	CG	TRP	C	36	-44.025	5.709	22.539	1.00	78.06
12331	CD1	TRP	C	36	-44.588	4.466	22.571	1.00	78.41
12332	NE1	TRP	C	36	-43.913	3.612	23.318	1.00	78.31

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FIGURE 3 IH

A	B	C	D	E	F	G	H	I	J
12333	CE2	TRP	C	36	-42.728	4.299	23.794	1.00	78.48
12334	CD2	TRP	C	36	-42.829	5.624	23.319	1.00	78.27
12335	CE3	TRP	C	36	-41.828	6.535	23.668	1.00	78.05
12336	CZ3	TRP	C	36	-40.785	6.106	24.465	1.00	78.20
12337	CH2	TRP	C	36	-40.714	4.784	24.919	1.00	78.05
12338	C22	TRP	C	36	-41.673	3.869	24.597	1.00	78.18
12339	C	TRP	C	36	-45.586	9.174	21.974	1.00	78.25
12340	O	TRP	C	36	-46.190	9.149	20.900	1.00	78.31
12341	N	ILE	C	37	-45.155	10.297	22.532	1.00	78.82
12342	CA	ILE	C	37	-45.307	11.573	21.858	1.00	79.44
12343	CB	ILE	C	37	-45.381	12.717	22.889	1.00	79.40
12344	CG1	ILE	C	37	-45.439	14.085	22.195	1.00	79.66
12345	CD1	ILE	C	37	-44.087	14.770	22.021	1.00	79.61
12346	CG2	ILE	C	37	-44.220	12.621	23.864	1.00	79.60
12347	C	ILE	C	37	-44.135	11.751	20.897	1.00	79.77
12348	O	ILE	C	37	-44.213	12.511	19.937	1.00	79.90
12349	N	SER	C	38	-43.061	11.008	21.145	1.00	80.29
12350	CA	SER	C	38	-41.858	11.087	20.327	1.00	80.82
12351	CB	SER	C	38	-40.873	12.072	20.956	1.00	80.90
12352	OG	SER	C	38	-40.539	11.670	22.276	1.00	80.77
12353	C	SER	C	38	-41.186	9.727	20.207	1.00	81.18
12354	O	SER	C	38	-41.839	8.686	20.283	1.00	81.24
12355	N	ASP	C	39	-39.871	9.744	20.018	1.00	81.60
12356	CA	ASP	C	39	-39.097	8.517	19.958	1.00	82.00
12357	CB	ASP	C	39	-38.289	8.452	18.669	1.00	82.03
12358	CG	ASP	C	39	-37.866	7.041	18.323	1.00	82.10
12359	OD1	ASP	C	39	-38.078	6.629	17.171	1.00	82.27
12360	OD2	ASP	C	39	-37.322	6.265	19.132	1.00	81.97
12361	C	ASP	C	39	-38.163	8.433	21.161	1.00	82.36
12362	O	ASP	C	39	-37.227	7.639	21.179	1.00	82.27
12363	N	HIS	C	40	-38.419	9.259	22.167	1.00	82.93
12364	CA	HIS	C	40	-37.577	9.283	23.356	1.00	83.59
12365	CB	HIS	C	40	-36.573	10.440	23.285	1.00	83.80
12366	CG	HIS	C	40	-36.336	10.960	21.900	1.00	84.44
12367	ND1	HIS	C	40	-36.976	12.078	21.409	1.00	84.78
12368	CE1	HIS	C	40	-36.574	12.303	20.170	1.00	85.23
12369	NE2	HIS	C	40	-35.695	11.373	19.841	1.00	85.24
12370	CD2	HIS	C	40	-35.526	10.522	20.906	1.00	84.75
12371	C	HIS	C	40	-38.439	9.467	24.593	1.00	83.84
12372	O	HIS	C	40	-38.143	8.944	25.667	1.00	83.91
12373	N	GLU	C	41	-39.507	10.234	24.437	1.00	84.11
12374	CA	GLU	C	41	-40.387	10.515	25.551	1.00	84.28
12375	CB	GLU	C	41	-40.523	12.026	25.743	1.00	84.27
12376	CG	GLU	C	41	-39.215	12.726	26.072	1.00	84.40
12377	CD	GLU	C	41	-39.278	14.225	25.843	1.00	84.96
12378	OE1	GLU	C	41	-39.163	14.651	24.672	1.00	85.40
12379	OE2	GLU	C	41	-39.440	14.977	26.830	1.00	84.60
12380	C	GLU	C	41	-41.754	9.892	25.337	1.00	84.47
12381	O	GLU	C	41	-42.182	9.674	24.203	1.00	84.46
12382	N	TYR	C	42	-42.421	9.586	26.441	1.00	84.64
12383	CA	TYR	C	42	-43.774	9.068	26.408	1.00	84.87



**REPLACEMENT SHEET**  
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**FIGURE 3 II**

A	B	C	D	E	F	G	H	I	J
12384	CB	TYR	C	42	-43.796	7.532	26.438	1.00	84.80
12385	CG	TYR	C	42	-43.306	6.902	27.726	1.00	84.02
12386	CD1	TYR	C	42	-43.977	7.109	28.924	1.00	83.42
12387	CE1	TYR	C	42	-43.541	6.537	30.097	1.00	82.96
12388	CZ	TYR	C	42	-42.422	5.739	30.089	1.00	82.88
12389	OH	TYR	C	42	-41.993	5.170	31.265	1.00	82.70
12390	CE2	TYR	C	42	-41.736	5.510	28.913	1.00	83.03
12391	CD2	TYR	C	42	-42.182	6.089	27.740	1.00	83.23
12392	C	TYR	C	42	-44.494	9.660	27.605	1.00	85.34
12393	O	TYR	C	42	-43.858	10.056	28.579	1.00	85.32
12394	N	LEU	C	43	-45.816	9.741	27.532	1.00	85.95
12395	CA	LEU	C	43	-46.584	10.321	28.624	1.00	86.61
12396	CB	LEU	C	43	-47.702	11.209	28.080	1.00	86.53
12397	CG	LEU	C	43	-47.305	12.660	27.813	1.00	86.47
12398	CD1	LEU	C	43	-45.798	12.823	27.843	1.00	86.41
12399	CD2	LEU	C	43	-47.885	13.154	26.497	1.00	86.63
12400	C	LEU	C	43	-47.151	9.264	29.552	1.00	87.14
12401	O	LEU	C	43	-47.387	8.129	29.149	1.00	87.11
12402	N	TYR	C	44	-47.358	9.650	30.803	1.00	88.04
12403	CA	TYR	C	44	-47.915	8.759	31.808	1.00	88.99
12404	CB	TYR	C	44	-46.805	8.153	32.656	1.00	88.86
12405	CG	TYR	C	44	-47.257	7.016	33.533	1.00	88.89
12406	CD1	TYR	C	44	-47.742	5.840	32.979	1.00	88.78
12407	CE1	TYR	C	44	-48.155	4.793	33.778	1.00	88.68
12408	CZ	TYR	C	44	-48.083	4.914	35.148	1.00	88.89
12409	OH	TYR	C	44	-48.492	3.872	35.950	1.00	89.26
12410	CE2	TYR	C	44	-47.605	6.073	35.722	1.00	88.83
12411	CD2	TYR	C	44	-47.197	7.115	34.916	1.00	88.84
12412	C	TYR	C	44	-48.863	9.567	32.677	1.00	89.77
12413	O	TYR	C	44	-48.695	10.776	32.821	1.00	89.89
12414	N	LYS	C	45	-49.860	8.908	33.256	1.00	90.81
12415	CA	LYS	C	45	-50.869	9.620	34.036	1.00	91.87
12416	CB	LYS	C	45	-52.221	9.590	33.310	1.00	91.78
12417	CG	LYS	C	45	-52.164	9.914	31.814	1.00	92.08
12418	CD	LYS	C	45	-51.805	8.692	30.972	1.00	92.16
12419	CE	LYS	C	45	-52.201	8.877	29.519	1.00	92.01
12420	NZ	LYS	C	45	-52.202	7.591	28.766	1.00	92.72
12421	C	LYS	C	45	-51.032	9.060	35.447	1.00	92.57
12422	O	LYS	C	45	-51.927	8.253	35.694	1.00	92.69
12423	N	GLN	C	46	-50.186	9.511	36.372	1.00	93.38
12424	CA	GLN	C	46	-50.218	9.015	37.749	1.00	94.22
12425	CB	GLN	C	46	-48.913	9.366	38.475	1.00	94.24
12426	CG	GLN	C	46	-48.374	8.268	39.395	1.00	94.78
12427	CD	GLN	C	46	-49.139	8.143	40.705	1.00	95.16
12428	OE1	GLN	C	46	-50.366	8.068	40.710	1.00	95.31
12429	NE2	GLN	C	46	-48.411	8.107	41.816	1.00	95.41
12430	C	GLN	C	46	-51.418	9.548	38.536	1.00	94.68
12431	O	GLN	C	46	-51.269	10.449	39.363	1.00	94.77
12432	N	GLU	C	47	-52.593	8.973	38.279	1.00	95.27
12433	CA	GLU	C	47	-53.851	9.343	38.944	1.00	95.80
12434	CB	GLU	C	47	-54.120	8.441	40.156	1.00	95.88

**REPLACEMENT SHEET**  
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**FIGURE 3 IJ**

A	B	C	D	E	F	G	H	I	J
12435	CG	GLU	C	47	-55.588	8.386	40.563	1.00	96.18
12436	CD	GLU	C	47	-55.795	8.516	42.063	1.00	96.41
12437	OE1	GLU	C	47	-55.740	9.655	42.577	1.00	96.51
12438	OE2	GLU	C	47	-56.020	7.484	42.730	1.00	96.50
12439	C	GLU	C	47	-53.914	10.806	39.377	1.00	96.06
12440	O	GLU	C	47	-54.466	11.135	40.426	1.00	96.06
12441	N	ASN	C	48	-53.350	11.683	38.561	1.00	96.45
12442	CA	ASN	C	48	-53.325	13.096	38.883	1.00	96.79
12443	CB	ASN	C	48	-52.344	13.362	40.031	1.00	96.76
12444	CG	ASN	C	48	-52.768	14.526	40.920	1.00	96.79
12445	OD1	ASN	C	48	-53.812	15.143	40.707	1.00	96.55
12446	ND2	ASN	C	48	-51.954	14.822	41.929	1.00	96.67
12447	C	ASN	C	48	-52.901	13.870	37.650	1.00	97.05
12448	O	ASN	C	48	-53.737	14.337	36.874	1.00	97.18
12449	N	ASN	C	49	-51.593	13.967	37.454	1.00	97.25
12450	CA	ASN	C	49	-51.052	14.748	36.359	1.00	97.43
12451	CB	ASN	C	49	-50.086	15.790	36.912	1.00	97.48
12452	CG	ASN	C	49	-50.143	15.890	38.424	1.00	97.66
12453	OD1	ASN	C	49	-49.374	15.232	39.130	1.00	97.35
12454	ND2	ASN	C	49	-51.054	16.714	38.931	1.00	97.85
12455	C	ASN	C	49	-50.315	13.901	35.342	1.00	97.54
12456	O	ASN	C	49	-49.948	12.758	35.614	1.00	97.56
12457	N	ILE	C	50	-50.084	14.484	34.173	1.00	97.73
12458	CA	ILE	C	50	-49.359	13.809	33.113	1.00	97.89
12459	CB	ILE	C	50	-49.779	14.357	31.748	1.00	97.92
12460	CG1	ILE	C	50	-51.246	14.025	31.480	1.00	98.05
12461	CD1	ILE	C	50	-51.904	14.956	30.490	1.00	98.30
12462	CG2	ILE	C	50	-48.889	13.791	30.654	1.00	97.72
12463	C	ILE	C	50	-47.861	13.978	33.298	1.00	98.00
12464	O	ILE	C	50	-47.334	15.086	33.239	1.00	97.98
12465	N	LEU	C	51	-47.180	12.866	33.536	1.00	98.19
12466	CA	LEU	C	51	-45.738	12.881	33.684	1.00	98.33
12467	CB	LEU	C	51	-45.289	11.771	34.634	1.00	98.39
12468	CG	LEU	C	51	-45.481	11.940	36.144	1.00	98.49
12469	CD1	LEU	C	51	-46.875	12.447	36.481	1.00	98.70
12470	CD2	LEU	C	51	-45.191	10.627	36.870	1.00	98.48
12471	C	LEU	C	51	-45.096	12.665	32.324	1.00	98.41
12472	O	LEU	C	51	-45.553	11.837	31.536	1.00	98.34
12473	N	VAL	C	52	-44.050	13.429	32.039	1.00	98.58
12474	CA	VAL	C	52	-43.288	13.222	30.821	1.00	98.83
12475	CB	VAL	C	52	-42.650	14.528	30.308	1.00	98.82
12476	CG1	VAL	C	52	-41.491	14.951	31.200	1.00	98.92
12477	CG2	VAL	C	52	-42.191	14.368	28.863	1.00	98.68
12478	C	VAL	C	52	-42.216	12.212	31.204	1.00	98.95
12479	O	VAL	C	52	-41.835	12.139	32.367	1.00	99.00
12480	N	PHE	C	53	-41.748	11.415	30.252	1.00	99.11
12481	CA	PHE	C	53	-40.745	10.404	30.563	1.00	99.34
12482	CB	PHE	C	53	-41.399	9.033	30.736	1.00	99.28
12483	CG	PHE	C	53	-41.855	8.734	32.137	1.00	99.21
12484	CD1	PHE	C	53	-43.035	9.264	32.629	1.00	99.25
12485	CE1	PHE	C	53	-43.460	8.973	33.912	1.00	99.14

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**FIGURE 3 IK**

A	B	C	D	E	F	G	H	I	J
12486	CZ	PHE	C	53	-42.713	8.138	34.714	1.00	99.13
12487	CE2	PHE	C	53	-41.542	7.595	34.232	1.00	99.16
12488	CD2	PHE	C	53	-41.121	7.888	32.949	1.00	99.08
12489	C	PHE	C	53	-39.698	10.292	29.472	1.00	99.62
12490	O	PHE	C	53	-40.028	10.241	28.289	1.00	99.62
12491	N	ASN	C	54	-38.433	10.242	29.875	1.00	99.97
12492	CA	ASN	C	54	-37.352	10.043	28.926	1.00	100.28
12493	CB	ASN	C	54	-36.065	10.704	29.423	1.00	100.27
12494	CG	ASN	C	54	-35.132	11.099	28.288	1.00	100.22
12495	OD1	ASN	C	54	-34.615	12.215	28.259	1.00	99.74
12496	ND2	ASN	C	54	-34.918	10.185	27.343	1.00	100.19
12497	C	ASN	C	54	-37.151	8.544	28.768	1.00	100.54
12498	O	ASN	C	54	-36.831	7.853	29.732	1.00	100.56
12499	N	ALA	C	55	-37.348	8.039	27.557	1.00	100.95
12500	CA	ALA	C	55	-37.216	6.607	27.311	1.00	101.44
12501	CB	ALA	C	55	-37.472	6.294	25.851	1.00	101.38
12502	C	ALA	C	55	-35.863	6.051	27.738	1.00	101.82
12503	O	ALA	C	55	-35.786	4.955	28.291	1.00	101.88
12504	N	GLU	C	56	-34.800	6.808	27.491	1.00	102.32
12505	CA	GLU	C	56	-33.451	6.341	27.793	1.00	102.83
12506	CB	GLU	C	56	-32.410	7.212	27.085	1.00	102.82
12507	CG	GLU	C	56	-31.007	6.628	27.113	1.00	103.08
12508	CD	GLU	C	56	-30.007	7.452	26.323	1.00	103.39
12509	OE1	GLU	C	56	-30.419	8.137	25.361	1.00	103.42
12510	OE2	GLU	C	56	-28.806	7.414	26.666	1.00	103.35
12511	C	GLU	C	56	-33.125	6.244	29.286	1.00	103.16
12512	O	GLU	C	56	-32.614	5.223	29.747	1.00	103.16
12513	N	TYR	C	57	-33.429	7.296	30.039	1.00	103.60
12514	CA	TYR	C	57	-33.060	7.339	31.452	1.00	104.14
12515	CB	TYR	C	57	-32.274	8.618	31.741	1.00	104.26
12516	CG	TYR	C	57	-31.538	9.154	30.534	1.00	104.73
12517	CD1	TYR	C	57	-30.284	8.670	30.187	1.00	105.05
12518	CE1	TYR	C	57	-29.612	9.157	29.086	1.00	105.39
12519	CZ	TYR	C	57	-30.198	10.136	28.309	1.00	105.58
12520	OH	TYR	C	57	-29.536	10.624	27.207	1.00	105.78
12521	CE2	TYR	C	57	-31.443	10.631	28.631	1.00	105.37
12522	CD2	TYR	C	57	-32.105	10.140	29.735	1.00	105.19
12523	C	TYR	C	57	-34.241	7.233	32.413	1.00	104.42
12524	O	TYR	C	57	-34.054	7.177	33.631	1.00	104.31
12525	N	GLY	C	58	-35.453	7.220	31.869	1.00	104.74
12526	CA	GLY	C	58	-36.646	7.090	32.684	1.00	105.14
12527	C	GLY	C	58	-36.773	8.136	33.772	1.00	105.47
12528	O	GLY	C	58	-37.237	7.842	34.876	1.00	105.45
12529	N	ASN	C	59	-36.336	9.355	33.475	1.00	105.72
12530	CA	ASN	C	59	-36.499	10.451	34.417	1.00	105.99
12531	CB	ASN	C	59	-35.227	11.296	34.550	1.00	106.00
12532	CG	ASN	C	59	-34.740	11.844	33.222	1.00	106.06
12533	OD1	ASN	C	59	-34.088	11.140	32.450	1.00	106.14
12534	ND2	ASN	C	59	-35.043	13.111	32.955	1.00	105.82
12535	C	ASN	C	59	-37.689	11.279	33.967	1.00	106.15
12536	O	ASN	C	59	-37.896	11.489	32.769	1.00	106.13

**REPLACEMENT SHEET**  
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**FIGURE 3 IL**

A	B	C	D	E	F	G	H	I	J
12537	N	SER	C	60	-38.480	11.741	34.926	1.00106.33	
12538	CA	SER	C	60	-39.705	12.440	34.587	1.00106.60	
12539	CB	SER	C	60	-40.912	11.583	34.988	1.00106.65	
12540	OG	SER	C	60	-40.861	11.233	36.362	1.00106.66	
12541	C	SER	C	60	-39.843	13.834	35.183	1.00106.76	
12542	O	SER	C	60	-38.986	14.306	35.931	1.00106.80	
12543	N	SER	C	61	-40.947	14.478	34.818	1.00106.91	
12544	CA	SER	C	61	-41.322	15.800	35.296	1.00107.07	
12545	CB	SER	C	61	-40.470	16.890	34.641	1.00107.10	
12546	OG	SER	C	61	-40.763	17.021	33.260	1.00107.07	
12547	C	SER	C	61	-42.787	15.987	34.932	1.00107.16	
12548	O	SER	C	61	-43.277	15.379	33.980	1.00107.20	
12549	N	VAL	C	62	-43.499	16.812	35.686	1.00107.27	
12550	CA	VAL	C	62	-44.905	17.029	35.386	1.00107.37	
12551	CB	VAL	C	62	-45.621	17.788	36.516	1.00107.41	
12552	CG1	VAL	C	62	-47.112	17.875	36.229	1.00107.33	
12553	CG2	VAL	C	62	-45.372	17.101	37.853	1.00107.53	
12554	C	VAL	C	62	-45.059	17.773	34.060	1.00107.38	
12555	O	VAL	C	62	-44.532	18.872	33.889	1.00107.30	
12556	N	PHE	C	63	-45.767	17.151	33.122	1.00107.40	
12557	CA	PHE	C	63	-46.012	17.738	31.811	1.00107.44	
12558	CB	PHE	C	63	-46.185	16.632	30.769	1.00107.53	
12559	CG	PHE	C	63	-46.688	17.119	29.446	1.00107.98	
12560	CD1	PHE	C	63	-48.046	17.259	29.218	1.00108.50	
12561	CE1	PHE	C	63	-48.516	17.711	28.002	1.00108.98	
12562	CZ	PHE	C	63	-47.626	18.022	26.988	1.00109.22	
12563	CE2	PHE	C	63	-46.267	17.883	27.200	1.00109.05	
12564	CD2	PHE	C	63	-45.804	17.432	28.425	1.00108.65	
12565	C	PHE	C	63	-47.257	18.611	31.867	1.00107.39	
12566	O	PHE	C	63	-47.290	19.710	31.313	1.00107.31	
12567	N	LEU	C	64	-48.283	18.104	32.541	1.00107.33	
12568	CA	LEU	C	64	-49.533	18.826	32.710	1.00107.32	
12569	CB	LEU	C	64	-50.454	18.603	31.511	1.00107.38	
12570	CG	LEU	C	64	-51.803	19.325	31.585	1.00107.60	
12571	CD1	LEU	C	64	-51.705	20.730	31.002	1.00107.80	
12572	CD2	LEU	C	64	-52.876	18.526	30.875	1.00107.46	
12573	C	LEU	C	64	-50.220	18.352	33.983	1.00107.27	
12574	O	LEU	C	64	-50.797	17.265	34.017	1.00107.32	
12575	N	GLU	C	65	-50.149	19.166	35.029	1.00107.21	
12576	CA	GLU	C	65	-50.766	18.826	36.306	1.00107.13	
12577	CB	GLU	C	65	-50.091	19.587	37.453	1.00107.24	
12578	CG	GLU	C	65	-49.785	21.044	37.142	1.00107.67	
12579	CD	GLU	C	65	-48.961	21.713	38.229	1.00108.31	
12580	OE1	GLU	C	65	-48.763	22.946	38.151	1.00108.55	
12581	OE2	GLU	C	65	-48.511	21.010	39.160	1.00108.38	
12582	C	GLU	C	65	-52.260	19.113	36.283	1.00106.88	
12583	O	GLU	C	65	-52.698	20.108	35.707	1.00106.98	
12584	N	ASN	C	66	-53.046	18.238	36.899	1.00106.55	
12585	CA	ASN	C	66	-54.489	18.448	36.924	1.00106.23	
12586	CB	ASN	C	66	-55.279	17.144	36.781	1.00106.30	
12587	CG	ASN	C	66	-56.035	17.076	35.468	1.00106.39	

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**FIGURE 3 IM**

A	B	C	D	E	F	G	H	I	J
12588	OD1	ASN	C	66	-56.375	18.109	34.892	1.00106.86	
12589	ND2	ASN	C	66	-56.300	15.866	34.988	1.00106.05	
12590	C	ASN	C	66	-54.993	19.297	38.085	1.00105.93	
12591	O	ASN	C	66	-55.491	18.796	39.095	1.00105.90	
12592	N	SER	C	67	-54.824	20.598	37.906	1.00105.45	
12593	CA	SER	C	67	-55.311	21.626	38.804	1.00104.97	
12594	CB	SER	C	67	-54.271	21.980	39.867	1.00105.03	
12595	OG	SER	C	67	-53.194	22.714	39.310	1.00105.01	
12596	C	SER	C	67	-55.478	22.757	37.811	1.00104.56	
12597	O	SER	C	67	-56.058	23.808	38.100	1.00104.55	
12598	N	THR	C	68	-54.952	22.489	36.618	1.00103.87	
12599	CA	THR	C	68	-55.016	23.391	35.483	1.00103.13	
12600	CB	THR	C	68	-54.311	22.743	34.276	1.00103.09	
12601	OG1	THR	C	68	-52.994	22.322	34.651	1.00103.00	
12602	CG2	THR	C	68	-54.058	23.764	33.186	1.00102.99	
12603	C	THR	C	68	-56.469	23.640	35.126	1.00102.68	
12604	O	THR	C	68	-56.892	24.782	34.947	1.00102.68	
12605	N	PHE	C	69	-57.235	22.558	35.041	1.00101.95	
12606	CA	PHE	C	69	-58.630	22.644	34.638	1.00101.21	
12607	CB	PHE	C	69	-58.892	21.651	33.509	1.00101.21	
12608	CG	PHE	C	69	-57.711	21.444	32.609	1.00101.05	
12609	CD1	PHE	C	69	-57.397	22.370	31.635	1.00100.92	
12610	CE1	PHE	C	69	-56.309	22.181	30.808	1.00100.82	
12611	CZ	PHE	C	69	-55.520	21.067	30.952	1.00100.87	
12612	CE2	PHE	C	69	-55.818	20.138	31.924	1.00100.79	
12613	CD2	PHE	C	69	-56.905	20.328	32.747	1.00100.90	
12614	C	PHE	C	69	-59.590	22.384	35.792	1.00100.70	
12615	O	PHE	C	69	-60.725	21.964	35.577	1.00100.64	
12616	N	ASP	C	70	-59.138	22.627	37.017	1.00 99.98	
12617	CA	ASP	C	70	-60.006	22.424	38.169	1.00 99.27	
12618	CB	ASP	C	70	-59.197	22.271	39.460	1.00 99.39	
12619	CG	ASP	C	70	-59.854	21.318	40.455	1.00 99.76	
12620	OD1	ASP	C	70	-60.924	20.756	40.134	1.00100.03	
12621	OD2	ASP	C	70	-59.370	21.062	41.579	1.00100.24	
12622	C	ASP	C	70	-60.985	23.591	38.257	1.00 98.57	
12623	O	ASP	C	70	-61.959	23.550	39.009	1.00 98.63	
12624	N	GLU	C	71	-60.716	24.634	37.477	1.00 97.63	
12625	CA	GLU	C	71	-61.603	25.787	37.407	1.00 96.63	
12626	CB	GLU	C	71	-60.820	27.095	37.545	1.00 96.82	
12627	CG	GLU	C	71	-61.652	28.260	38.068	1.00 97.17	
12628	CD	GLU	C	71	-60.900	29.580	38.045	1.00 97.32	
12629	OE1	GLU	C	71	-59.666	29.558	37.847	1.00 97.16	
12630	OE2	GLU	C	71	-61.545	30.639	38.223	1.00 97.07	
12631	C	GLU	C	71	-62.320	25.722	36.066	1.00 95.71	
12632	O	GLU	C	71	-63.229	26.504	35.787	1.00 95.56	
12633	N	PHE	C	72	-61.888	24.770	35.244	1.00 94.60	
12634	CA	PHE	C	72	-62.489	24.502	33.942	1.00 93.53	
12635	CB	PHE	C	72	-61.793	23.297	33.307	1.00 93.60	
12636	CG	PHE	C	72	-62.130	23.076	31.864	1.00 93.81	
12637	CD1	PHE	C	72	-63.054	22.116	31.498	1.00 94.04	
12638	CE1	PHE	C	72	-63.360	21.900	30.169	1.00 94.09	

**REPLACEMENT SHEET**  
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**FIGURE 3 IN**

A	B	C	D	E	F	G	H	I	J
12639	CZ	PHE	C	72	-62.731	22.638	29.188	1.00	94.38
12640	CE2	PHE	C	72	-61.799	23.593	29.540	1.00	94.21
12641	CD2	PHE	C	72	-61.499	23.804	30.872	1.00	94.21
12642	C	PHE	C	72	-63.978	24.214	34.113	1.00	92.54
12643	O	PHE	C	72	-64.765	24.388	33.184	1.00	92.47
12644	N	GLY	C	73	-64.352	23.775	35.313	1.00	91.41
12645	CA	GLY	C	73	-65.739	23.499	35.647	1.00	89.90
12646	C	GLY	C	73	-66.365	22.381	34.840	1.00	88.74
12647	O	GLY	C	73	-67.552	22.428	34.515	1.00	88.78
12648	N	HIS	C	74	-65.564	21.374	34.511	1.00	87.47
12649	CA	HIS	C	74	-66.043	20.227	33.751	1.00	86.07
12650	CB	HIS	C	74	-65.966	20.498	32.247	1.00	86.28
12651	CG	HIS	C	74	-66.952	21.516	31.762	1.00	86.53
12652	ND1	HIS	C	74	-68.316	21.327	31.839	1.00	86.89
12653	CE1	HIS	C	74	-68.934	22.380	31.335	1.00	87.10
12654	NE2	HIS	C	74	-68.020	23.248	30.937	1.00	87.04
12655	CD2	HIS	C	74	-66.772	22.731	31.192	1.00	86.82
12656	C	HIS	C	74	-65.234	18.986	34.092	1.00	84.97
12657	O	HIS	C	74	-64.086	19.079	34.526	1.00	84.75
12658	N	SER	C	75	-65.843	17.823	33.895	1.00	83.51
12659	CA	SER	C	75	-65.185	16.557	34.172	1.00	82.03
12660	CB	SER	C	75	-66.208	15.523	34.642	1.00	82.15
12661	OG	SER	C	75	-65.578	14.437	35.298	1.00	82.05
12662	C	SER	C	75	-64.474	16.083	32.912	1.00	80.94
12663	O	SER	C	75	-65.112	15.751	31.917	1.00	80.85
12664	N	ILE	C	76	-63.148	16.057	32.957	1.00	79.56
12665	CA	ILE	C	76	-62.351	15.692	31.795	1.00	78.15
12666	CB	ILE	C	76	-60.919	16.208	31.960	1.00	78.25
12667	CG1	ILE	C	76	-60.926	17.721	32.212	1.00	77.94
12668	CD1	ILE	C	76	-61.795	18.505	31.254	1.00	77.53
12669	CG2	ILE	C	76	-60.069	15.826	30.750	1.00	78.05
12670	C	ILE	C	76	-62.334	14.190	31.566	1.00	77.39
12671	O	ILE	C	76	-61.799	13.437	32.384	1.00	77.16
12672	N	ASN	C	77	-62.907	13.759	30.445	1.00	76.15
12673	CA	ASN	C	77	-62.969	12.338	30.128	1.00	74.99
12674	CB	ASN	C	77	-64.094	12.040	29.141	1.00	74.99
12675	CG	ASN	C	77	-64.190	10.560	28.802	1.00	74.36
12676	OD1	ASN	C	77	-64.458	9.727	29.672	1.00	73.41
12677	ND2	ASN	C	77	-63.964	10.226	27.534	1.00	73.07
12678	C	ASN	C	77	-61.663	11.829	29.565	1.00	74.31
12679	O	ASN	C	77	-61.214	10.735	29.901	1.00	74.25
12680	N	ASP	C	78	-61.063	12.627	28.693	1.00	73.48
12681	CA	ASP	C	78	-59.792	12.264	28.092	1.00	72.65
12682	CB	ASP	C	78	-59.991	11.266	26.944	1.00	72.58
12683	CG	ASP	C	78	-58.753	10.412	26.688	1.00	72.38
12684	OD1	ASP	C	78	-57.701	10.679	27.312	1.00	72.10
12685	OD2	ASP	C	78	-58.737	9.450	25.890	1.00	71.29
12686	C	ASP	C	78	-59.084	13.504	27.580	1.00	72.15
12687	O	ASP	C	78	-59.661	14.589	27.507	1.00	72.00
12688	N	TYR	C	79	-57.821	13.333	27.231	1.00	71.66
12689	CA	TYR	C	79	-57.038	14.421	26.690	1.00	71.20

**REPLACEMENT SHEET**  
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**FIGURE 3 IO**

A	B	C	D	E	F	G	H	I	J
12690	CB	TYR	C	79	-56.058	14.959	27.736	1.00	71.18
12691	CG	TYR	C	79	-54.920	14.014	28.038	1.00	70.81
12692	CD1	TYR	C	79	-54.943	13.210	29.167	1.00	70.70
12693	CE1	TYR	C	79	-53.906	12.342	29.440	1.00	70.91
12694	CZ	TYR	C	79	-52.830	12.272	28.560	1.00	70.37
12695	OH	TYR	C	79	-51.793	11.415	28.852	1.00	70.04
12696	CE2	TYR	C	79	-52.787	13.059	27.457	1.00	70.54
12697	CD2	TYR	C	79	-53.825	13.923	27.192	1.00	70.46
12698	C	TYR	C	79	-56.280	13.905	25.488	1.00	70.82
12699	O	TYR	C	79	-55.973	12.721	25.393	1.00	70.72
12700	N	SER	C	80	-55.995	14.800	24.559	1.00	70.61
12701	CA	SER	C	80	-55.210	14.442	23.398	1.00	70.59
12702	CB	SER	C	80	-56.082	14.333	22.151	1.00	70.42
12703	OG	SER	C	80	-55.362	13.702	21.112	1.00	70.29
12704	C	SER	C	80	-54.155	15.516	23.218	1.00	70.56
12705	O	SER	C	80	-54.443	16.711	23.345	1.00	70.59
12706	N	ILE	C	81	-52.929	15.088	22.948	1.00	70.28
12707	CA	ILE	C	81	-51.834	16.025	22.760	1.00	69.94
12708	CB	ILE	C	81	-50.641	15.660	23.667	1.00	69.93
12709	CG1	ILE	C	81	-50.812	16.325	25.029	1.00	69.77
12710	CD1	ILE	C	81	-50.407	15.458	26.182	1.00	69.81
12711	CG2	ILE	C	81	-49.330	16.115	23.051	1.00	69.84
12712	C	ILE	C	81	-51.419	16.065	21.306	1.00	69.71
12713	O	ILE	C	81	-51.019	15.050	20.739	1.00	69.64
12714	N	SER	C	82	-51.548	17.240	20.702	1.00	69.37
12715	CA	SER	C	82	-51.118	17.436	19.333	1.00	69.33
12716	CB	SER	C	82	-51.173	18.922	18.975	1.00	69.47
12717	OG	SER	C	82	-50.602	19.156	17.699	1.00	69.91
12718	C	SER	C	82	-49.686	16.953	19.252	1.00	68.99
12719	O	SER	C	82	-48.955	17.046	20.232	1.00	69.07
12720	N	PRO	C	83	-49.284	16.418	18.106	1.00	68.64
12721	CA	PRO	C	83	-47.905	15.953	17.926	1.00	68.48
12722	CB	PRO	C	83	-47.888	15.476	16.473	1.00	68.45
12723	CG	PRO	C	83	-49.319	15.151	16.179	1.00	68.52
12724	CD	PRO	C	83	-50.107	16.202	16.905	1.00	68.55
12725	C	PRO	C	83	-46.929	17.111	18.142	1.00	68.19
12726	O	PRO	C	83	-45.824	16.919	18.637	1.00	68.33
12727	N	ASP	C	84	-47.359	18.308	17.769	1.00	67.84
12728	CA	ASP	C	84	-46.595	19.523	17.987	1.00	67.58
12729	CB	ASP	C	84	-47.529	20.723	17.854	1.00	67.54
12730	CG	ASP	C	84	-47.266	21.528	16.622	1.00	68.01
12731	OD1	ASP	C	84	-47.959	22.548	16.437	1.00	68.19
12732	OD2	ASP	C	84	-46.389	21.225	15.787	1.00	68.92
12733	C	ASP	C	84	-46.036	19.584	19.394	1.00	67.29
12734	O	ASP	C	84	-44.822	19.566	19.615	1.00	67.36
12735	N	GLY	C	85	-46.964	19.672	20.341	1.00	66.79
12736	CA	GLY	C	85	-46.658	19.891	21.738	1.00	66.22
12737	C	GLY	C	85	-47.167	21.291	22.043	1.00	65.77
12738	O	GLY	C	85	-46.934	21.835	23.125	1.00	65.89
12739	N	GLN	C	86	-47.868	21.869	21.068	1.00	65.07
12740	CA	GLN	C	86	-48.405	23.228	21.169	1.00	64.48

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FIGURE 3 IP

A	B	C	D	E	F	G	H	I	J
12741	CB	GLN	C	86	-48.405	23.908	19.793	1.00	64.40
12742	CG	GLN	C	86	-47.240	24.862	19.572	1.00	64.45
12743	CD	GLN	C	86	-46.995	25.174	18.106	1.00	64.57
12744	OE1	GLN	C	86	-47.669	26.033	17.519	1.00	64.14
12745	NE2	GLN	C	86	-46.025	24.483	17.511	1.00	63.31
12746	C	GLN	C	86	-49.800	23.306	21.787	1.00	64.13
12747	O	GLN	C	86	-50.129	24.272	22.482	1.00	63.89
12748	N	PHE	C	87	-50.629	22.303	21.518	1.00	63.78
12749	CA	PHE	C	87	-51.977	22.289	22.071	1.00	63.29
12750	CB	PHE	C	87	-52.997	22.764	21.033	1.00	63.41
12751	CG	PHE	C	87	-52.694	24.116	20.460	1.00	63.48
12752	CD1	PHE	C	87	-53.320	25.247	20.951	1.00	63.92
12753	CE1	PHE	C	87	-53.038	26.494	20.429	1.00	64.03
12754	CZ	PHE	C	87	-52.123	26.620	19.405	1.00	64.22
12755	CE2	PHE	C	87	-51.493	25.496	18.905	1.00	63.52
12756	CD2	PHE	C	87	-51.781	24.256	19.429	1.00	63.35
12757	C	PHE	C	87	-52.370	20.914	22.589	1.00	62.81
12758	O	PHE	C	87	-51.969	19.889	22.041	1.00	63.11
12759	N	ILE	C	88	-53.144	20.903	23.667	1.00	62.10
12760	CA	ILE	C	88	-53.679	19.668	24.209	1.00	61.22
12761	CB	ILE	C	88	-53.349	19.519	25.715	1.00	61.25
12762	CG1	ILE	C	88	-53.520	18.066	26.166	1.00	61.28
12763	CD1	ILE	C	88	-52.939	17.792	27.538	1.00	60.54
12764	CG2	ILE	C	88	-54.207	20.428	26.559	1.00	60.74
12765	C	ILE	C	88	-55.178	19.709	23.962	1.00	60.82
12766	O	ILE	C	88	-55.808	20.763	24.090	1.00	60.91
12767	N	LEU	C	89	-55.743	18.575	23.567	1.00	60.14
12768	CA	LEU	C	89	-57.174	18.502	23.277	1.00	59.40
12769	CB	LEU	C	89	-57.413	17.581	22.085	1.00	59.54
12770	CG	LEU	C	89	-58.811	17.434	21.502	1.00	59.68
12771	CD1	LEU	C	89	-58.678	16.746	20.158	1.00	59.51
12772	CD2	LEU	C	89	-59.491	18.786	21.345	1.00	60.01
12773	C	LEU	C	89	-57.903	17.987	24.505	1.00	58.58
12774	O	LEU	C	89	-57.472	17.014	25.113	1.00	58.15
12775	N	LEU	C	90	-58.995	18.650	24.874	1.00	57.83
12776	CA	LEU	C	90	-59.740	18.279	26.075	1.00	57.34
12777	CB	LEU	C	90	-59.841	19.466	27.038	1.00	57.40
12778	CG	LEU	C	90	-58.615	19.701	27.921	1.00	57.46
12779	CD1	LEU	C	90	-58.963	20.637	29.065	1.00	57.90
12780	CD2	LEU	C	90	-58.116	18.375	28.456	1.00	57.26
12781	C	LEU	C	90	-61.127	17.701	25.801	1.00	56.84
12782	O	LEU	C	90	-62.034	18.411	25.373	1.00	56.74
12783	N	GLU	C	91	-61.280	16.410	26.089	1.00	56.21
12784	CA	GLU	C	91	-62.530	15.683	25.858	1.00	55.36
12785	CB	GLU	C	91	-62.202	14.265	25.407	1.00	55.13
12786	CG	GLU	C	91	-63.379	13.434	24.921	1.00	55.49
12787	CD	GLU	C	91	-62.941	12.049	24.461	1.00	55.86
12788	OE1	GLU	C	91	-62.638	11.198	25.323	1.00	55.96
12789	OE2	GLU	C	91	-62.877	11.811	23.239	1.00	56.22
12790	C	GLU	C	91	-63.419	15.640	27.104	1.00	54.78
12791	O	GLU	C	91	-62.987	15.205	28.172	1.00	55.13



**REPLACEMENT SHEET**  
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**FIGURE 3 IQ**

A	B	C	D	E	F	G	H	I	J
12792	N	TYR	C	92	-64.657	16.098	26.960	1.00	53.96
12793	CA	TYR	C	92	-65.634	16.063	28.047	1.00	53.29
12794	CB	TYR	C	92	-65.451	17.234	29.024	1.00	53.45
12795	CG	TYR	C	92	-65.739	18.600	28.444	1.00	52.87
12796	CD1	TYR	C	92	-64.948	19.124	27.428	1.00	52.94
12797	CE1	TYR	C	92	-65.196	20.372	26.907	1.00	52.73
12798	CZ	TYR	C	92	-66.246	21.113	27.395	1.00	52.65
12799	OH	TYR	C	92	-66.495	22.352	26.857	1.00	54.21
12800	CE2	TYR	C	92	-67.046	20.619	28.405	1.00	51.62
12801	CD2	TYR	C	92	-66.788	19.372	28.925	1.00	51.67
12802	C	TYR	C	92	-67.059	16.007	27.503	1.00	52.56
12803	O	TYR	C	92	-67.261	15.962	26.295	1.00	52.30
12804	N	ASN	C	93	-68.044	16.006	28.395	1.00	51.97
12805	CA	ASN	C	93	-69.439	15.858	27.974	1.00	51.25
12806	CB	ASN	C	93	-69.919	17.086	27.211	1.00	51.25
12807	CG	ASN	C	93	-70.276	18.237	28.131	1.00	51.22
12808	OD1	ASN	C	93	-70.130	18.137	29.348	1.00	50.55
12809	ND2	ASN	C	93	-70.758	19.334	27.554	1.00	51.19
12810	C	ASN	C	93	-69.609	14.592	27.129	1.00	50.67
12811	O	ASN	C	93	-70.381	14.547	26.188	1.00	50.59
12812	N	TYR	C	94	-68.861	13.566	27.499	1.00	50.06
12813	CA	TYR	C	94	-68.848	12.295	26.808	1.00	49.66
12814	CB	TYR	C	94	-67.625	11.511	27.290	1.00	49.61
12815	CG	TYR	C	94	-67.635	10.039	26.969	1.00	50.89
12816	CD1	TYR	C	94	-66.979	9.553	25.851	1.00	50.78
12817	CE1	TYR	C	94	-66.978	8.206	25.552	1.00	51.62
12818	CZ	TYR	C	94	-67.631	7.321	26.375	1.00	52.07
12819	OH	TYR	C	94	-67.624	5.973	26.066	1.00	53.02
12820	CE2	TYR	C	94	-68.285	7.777	27.503	1.00	51.93
12821	CD2	TYR	C	94	-68.280	9.126	27.799	1.00	51.61
12822	C	TYR	C	94	-70.116	11.467	27.040	1.00	49.15
12823	O	TYR	C	94	-70.529	11.258	28.183	1.00	49.10
12824	N	VAL	C	95	-70.745	11.027	25.955	1.00	47.85
12825	CA	VAL	C	95	-71.845	10.072	26.056	1.00	47.07
12826	CB	VAL	C	95	-73.258	10.703	25.945	1.00	47.35
12827	CG1	VAL	C	95	-73.203	12.217	26.129	1.00	47.00
12828	CG2	VAL	C	95	-73.929	10.329	24.639	1.00	47.41
12829	C	VAL	C	95	-71.643	8.972	25.012	1.00	46.09
12830	O	VAL	C	95	-71.511	9.236	23.822	1.00	45.81
12831	N	LYS	C	96	-71.587	7.736	25.486	1.00	45.36
12832	CA	LYS	C	96	-71.331	6.581	24.631	1.00	44.41
12833	CB	LYS	C	96	-71.034	5.352	25.501	1.00	44.27
12834	CG	LYS	C	96	-70.908	4.033	24.759	1.00	43.31
12835	CD	LYS	C	96	-70.429	2.911	25.690	1.00	41.68
12836	CE	LYS	C	96	-70.680	1.537	25.060	1.00	41.73
12837	NZ	LYS	C	96	-72.135	1.379	24.701	1.00	40.16
12838	C	LYS	C	96	-72.472	6.269	23.677	1.00	43.96
12839	O	LYS	C	96	-73.655	6.418	24.012	1.00	43.57
12840	N	GLN	C	97	-72.105	5.852	22.474	1.00	43.47
12841	CA	GLN	C	97	-73.094	5.341	21.536	1.00	43.11
12842	CB	GLN	C	97	-72.990	6.010	20.162	1.00	43.52

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FIGURE 3 IR

A	B	C	D	E	F	G	H	I	J
12843	CG	GLN	C	97	-74.137	5.683	19.214	1.00	45.18
12844	CD	GLN	C	97	-74.129	6.546	17.944	1.00	48.17
12845	OE1	GLN	C	97	-75.119	7.220	17.635	1.00	49.06
12846	NE2	GLN	C	97	-73.015	6.523	17.211	1.00	47.49
12847	C	GLN	C	97	-72.856	3.841	21.463	1.00	42.21
12848	O	GLN	C	97	-73.284	3.105	22.353	1.00	42.31
12849	N	TRP	C	98	-72.130	3.381	20.452	1.00	40.98
12850	CA	TRP	C	98	-71.914	1.946	20.320	1.00	40.00
12851	CB	TRP	C	98	-72.023	1.491	18.865	1.00	39.57
12852	CG	TRP	C	98	-73.243	2.019	18.198	1.00	37.44
12853	CD1	TRP	C	98	-73.310	2.611	16.979	1.00	36.49
12854	NE1	TRP	C	98	-74.605	2.979	16.697	1.00	34.62
12855	CE2	TRP	C	98	-75.404	2.641	17.756	1.00	35.69
12856	CD2	TRP	C	98	-74.579	2.034	18.723	1.00	35.77
12857	CE3	TRP	C	98	-75.168	1.583	19.911	1.00	33.97
12858	CZ3	TRP	C	98	-76.523	1.750	20.089	1.00	32.14
12859	CH2	TRP	C	98	-77.313	2.354	19.116	1.00	34.11
12860	CZ2	TRP	C	98	-76.779	2.807	17.940	1.00	35.02
12861	C	TRP	C	98	-70.606	1.510	20.935	1.00	39.85
12862	O	TRP	C	98	-70.169	2.087	21.922	1.00	40.10
12863	N	ARG	C	99	-69.988	0.486	20.366	1.00	39.89
12864	CA	ARG	C	99	-68.743	-0.035	20.917	1.00	40.14
12865	CB	ARG	C	99	-68.310	-1.305	20.189	1.00	40.11
12866	CG	ARG	C	99	-67.364	-2.170	21.017	1.00	40.05
12867	CD	ARG	C	99	-66.735	-3.348	20.285	1.00	38.41
12868	NE	ARG	C	99	-67.679	-4.417	19.962	1.00	40.14
12869	CZ	ARG	C	99	-68.053	-5.383	20.801	1.00	41.00
12870	NH1	ARG	C	99	-67.585	-5.415	22.045	1.00	42.47
12871	NH2	ARG	C	99	-68.902	-6.321	20.402	1.00	39.62
12872	C	ARG	C	99	-67.606	0.987	20.916	1.00	40.49
12873	O	ARG	C	99	-66.840	1.085	21.887	1.00	40.62
12874	N	HIS	C	100	-67.501	1.756	19.841	1.00	40.70
12875	CA	HIS	C	100	-66.421	2.734	19.722	1.00	41.29
12876	CB	HIS	C	100	-65.599	2.459	18.469	1.00	40.60
12877	CG	HIS	C	100	-65.231	1.020	18.299	1.00	38.97
12878	ND1	HIS	C	100	-64.288	0.395	19.086	1.00	37.10
12879	CE1	HIS	C	100	-64.175	-0.867	18.713	1.00	35.78
12880	NE2	HIS	C	100	-65.013	-1.082	17.715	1.00	35.69
12881	CD2	HIS	C	100	-65.686	0.081	17.439	1.00	35.77
12882	C	HIS	C	100	-66.976	4.139	19.652	1.00	42.16
12883	O	HIS	C	100	-66.473	5.054	20.307	1.00	42.53
12884	N	SER	C	101	-68.032	4.297	18.869	1.00	43.15
12885	CA	SER	C	101	-68.658	5.593	18.680	1.00	44.52
12886	CB	SER	C	101	-69.843	5.486	17.723	1.00	44.35
12887	OG	SER	C	101	-70.720	4.438	18.086	1.00	45.12
12888	C	SER	C	101	-69.100	6.274	19.973	1.00	45.50
12889	O	SER	C	101	-69.524	5.623	20.934	1.00	46.06
12890	N	TYR	C	102	-68.986	7.595	19.979	1.00	46.20
12891	CA	TYR	C	102	-69.420	8.399	21.091	1.00	46.87
12892	CB	TYR	C	102	-68.534	8.212	22.318	1.00	46.91
12893	CG	TYR	C	102	-67.088	8.668	22.209	1.00	46.66

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FIGURE 3 IS

A	B	C	D	E	F	G	H	I	J
12894	CD1	TYR	C	102	-66.716	9.954	22.573	1.00	46.77
12895	CE1	TYR	C	102	-65.389	10.366	22.518	1.00	47.77
12896	CZ	TYR	C	102	-64.410	9.478	22.104	1.00	48.33
12897	OH	TYR	C	102	-63.093	9.887	22.044	1.00	48.76
12898	CE2	TYR	C	102	-64.750	8.188	21.751	1.00	47.47
12899	CD2	TYR	C	102	-66.086	7.787	21.813	1.00	47.17
12900	C	TYR	C	102	-69.457	9.848	20.679	1.00	47.85
12901	O	TYR	C	102	-68.892	10.239	19.661	1.00	48.16
12902	N	THR	C	103	-70.129	10.639	21.495	1.00	48.55
12903	CA	THR	C	103	-70.290	12.046	21.250	1.00	49.29
12904	CB	THR	C	103	-71.797	12.334	21.160	1.00	49.45
12905	OG1	THR	C	103	-72.180	12.433	19.778	1.00	49.34
12906	CG2	THR	C	103	-72.137	13.680	21.736	1.00	49.38
12907	C	THR	C	103	-69.615	12.779	22.401	1.00	50.01
12908	O	THR	C	103	-69.586	12.265	23.527	1.00	49.63
12909	N	ALA	C	104	-69.031	13.948	22.122	1.00	51.05
12910	CA	ALA	C	104	-68.338	14.713	23.173	1.00	52.17
12911	CB	ALA	C	104	-67.017	14.049	23.529	1.00	52.10
12912	C	ALA	C	104	-68.108	16.189	22.875	1.00	53.01
12913	O	ALA	C	104	-68.158	16.621	21.722	1.00	52.89
12914	N	SER	C	105	-67.868	16.957	23.940	1.00	54.39
12915	CA	SER	C	105	-67.531	18.383	23.840	1.00	55.36
12916	CB	SER	C	105	-68.091	19.173	25.024	1.00	55.27
12917	OG	SER	C	105	-69.443	19.526	24.819	1.00	54.42
12918	C	SER	C	105	-66.013	18.517	23.819	1.00	56.28
12919	O	SER	C	105	-65.304	17.631	24.296	1.00	56.13
12920	N	TYR	C	106	-65.512	19.623	23.276	1.00	57.55
12921	CA	TYR	C	106	-64.067	19.808	23.170	1.00	58.72
12922	CB	TYR	C	106	-63.559	19.248	21.847	1.00	58.56
12923	CG	TYR	C	106	-63.817	17.779	21.663	1.00	58.33
12924	CD1	TYR	C	106	-64.997	17.329	21.092	1.00	58.17
12925	CE1	TYR	C	106	-65.234	15.981	20.921	1.00	58.20
12926	CZ	TYR	C	106	-64.286	15.068	21.322	1.00	58.18
12927	OH	TYR	C	106	-64.516	13.726	21.154	1.00	59.07
12928	CE2	TYR	C	106	-63.104	15.469	21.889	1.00	58.09
12929	CD2	TYR	C	106	-62.875	16.837	22.055	1.00	58.36
12930	C	TYR	C	106	-63.571	21.246	23.326	1.00	59.83
12931	O	TYR	C	106	-64.215	22.210	22.889	1.00	59.62
12932	N	ASP	C	107	-62.405	21.362	23.954	1.00	61.22
12933	CA	ASP	C	107	-61.728	22.637	24.140	1.00	62.67
12934	CB	ASP	C	107	-62.012	23.218	25.518	1.00	62.73
12935	CG	ASP	C	107	-63.321	23.943	25.569	1.00	63.36
12936	OD1	ASP	C	107	-63.625	24.676	24.607	1.00	64.09
12937	OD2	ASP	C	107	-64.117	23.839	26.522	1.00	65.12
12938	C	ASP	C	107	-60.242	22.424	23.980	1.00	63.58
12939	O	ASP	C	107	-59.662	21.539	24.604	1.00	63.69
12940	N	ILE	C	108	-59.628	23.229	23.126	1.00	64.96
12941	CA	ILE	C	108	-58.202	23.121	22.893	1.00	66.25
12942	CB	ILE	C	108	-57.879	23.481	21.443	1.00	65.94
12943	CG1	ILE	C	108	-58.709	22.609	20.500	1.00	65.80
12944	CD1	ILE	C	108	-58.971	23.240	19.159	1.00	65.86

**REPLACEMENT SHEET**  
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**FIGURE 3 IT**

A	B	C	D	E	F	G	H	I	J
12945	CG2	ILE	C	108	-56.401	23.306	21.181	1.00	65.68
12946	C	ILE	C	108	-57.478	24.054	23.839	1.00	67.51
12947	O	ILE	C	108	-57.905	25.188	24.043	1.00	67.62
12948	N	TYR	C	109	-56.398	23.572	24.437	1.00	69.30
12949	CA	TYR	C	109	-55.617	24.417	25.321	1.00	71.29
12950	CB	TYR	C	109	-55.408	23.777	26.692	1.00	71.59
12951	CG	TYR	C	109	-56.374	24.280	27.738	1.00	73.01
12952	CD1	TYR	C	109	-55.963	24.502	29.048	1.00	74.40
12953	CE1	TYR	C	109	-56.852	24.970	30.009	1.00	74.66
12954	CZ	TYR	C	109	-58.166	25.218	29.663	1.00	75.26
12955	OH	TYR	C	109	-59.062	25.682	30.608	1.00	75.96
12956	CE2	TYR	C	109	-58.590	25.009	28.367	1.00	75.10
12957	CD2	TYR	C	109	-57.697	24.546	27.414	1.00	74.15
12958	C	TYR	C	109	-54.288	24.747	24.696	1.00	72.29
12959	O	TYR	C	109	-53.488	23.857	24.403	1.00	72.28
12960	N	ASP	C	110	-54.079	26.042	24.478	1.00	73.72
12961	CA	ASP	C	110	-52.831	26.553	23.947	1.00	75.06
12962	CB	ASP	C	110	-52.958	28.051	23.675	1.00	75.46
12963	CG	ASP	C	110	-51.890	28.569	22.727	1.00	76.76
12964	OD1	ASP	C	110	-50.784	27.976	22.687	1.00	77.78
12965	OD2	ASP	C	110	-52.074	29.563	21.983	1.00	77.35
12966	C	ASP	C	110	-51.790	26.318	25.013	1.00	75.66
12967	O	ASP	C	110	-51.772	27.018	26.029	1.00	75.84
12968	N	LEU	C	111	-50.935	25.324	24.793	1.00	76.33
12969	CA	LEU	C	111	-49.922	24.963	25.776	1.00	77.04
12970	CB	LEU	C	111	-49.176	23.692	25.349	1.00	77.25
12971	CG	LEU	C	111	-50.057	22.435	25.344	1.00	77.29
12972	CD1	LEU	C	111	-50.657	22.202	26.721	1.00	77.62
12973	CD2	LEU	C	111	-49.292	21.211	24.895	1.00	77.54
12974	C	LEU	C	111	-48.958	26.109	26.072	1.00	77.48
12975	O	LEU	C	111	-47.799	25.885	26.437	1.00	77.49
12976	N	ASN	C	112	-49.460	27.335	25.920	1.00	77.89
12977	CA	ASN	C	112	-48.705	28.548	26.222	1.00	78.28
12978	CB	ASN	C	112	-49.549	29.800	25.933	1.00	78.48
12979	CG	ASN	C	112	-49.420	30.283	24.491	1.00	79.52
12980	OD1	ASN	C	112	-48.766	29.644	23.656	1.00	79.74
12981	ND2	ASN	C	112	-50.042	31.426	24.194	1.00	80.43
12982	C	ASN	C	112	-48.242	28.572	27.672	1.00	78.15
12983	O	ASN	C	112	-47.801	27.558	28.215	1.00	78.08
12984	N	LEU	C	116	-57.788	28.279	27.447	1.00	72.85
12985	CA	LEU	C	116	-58.622	27.775	26.320	1.00	73.03
12986	CB	LEU	C	116	-60.118	27.840	26.658	1.00	73.20
12987	CG	LEU	C	116	-60.755	27.158	27.865	1.00	73.68
12988	CD1	LEU	C	116	-60.610	28.027	29.102	1.00	74.21
12989	CD2	LEU	C	116	-62.232	26.880	27.580	1.00	74.11
12990	C	LEU	C	116	-58.417	28.597	25.061	1.00	72.91
12991	O	LEU	C	116	-58.267	29.816	25.128	1.00	73.02
12992	N	ILE	C	117	-58.421	27.928	23.912	1.00	72.67
12993	CA	ILE	C	117	-58.425	28.618	22.632	1.00	72.45
12994	CB	ILE	C	117	-57.975	27.683	21.504	1.00	72.61
12995	CG1	ILE	C	117	-56.454	27.512	21.518	1.00	73.05

**REPLACEMENT SHEET**  
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**FIGURE 3 IU**

A	B	C	D	E	F	G	H	I	J
12996	CD1	ILE	C	117	-55.705	28.625	20.803	1.00	74.03
12997	CG2	ILE	C	117	-58.392	28.244	20.176	1.00	72.78
12998	C	ILE	C	117	-59.878	29.039	22.447	1.00	72.09
12999	O	ILE	C	117	-60.611	28.510	21.611	1.00	72.22
13000	N	THR	C	118	-60.260	30.018	23.255	1.00	71.59
13001	CA	THR	C	118	-61.625	30.525	23.406	1.00	70.99
13002	CB	THR	C	118	-61.581	31.705	24.411	1.00	71.18
13003	OG1	THR	C	118	-60.444	32.533	24.120	1.00	71.21
13004	CG2	THR	C	118	-61.300	31.209	25.827	1.00	71.20
13005	C	THR	C	118	-62.466	30.982	22.205	1.00	70.46
13006	O	THR	C	118	-63.677	31.133	22.345	1.00	70.38
13007	N	GLU	C	119	-61.878	31.205	21.037	1.00	69.97
13008	CA	GLU	C	119	-62.673	31.849	19.983	1.00	69.55
13009	CB	GLU	C	119	-61.932	33.047	19.367	1.00	69.69
13010	CG	GLU	C	119	-60.421	32.915	19.326	1.00	70.24
13011	CD	GLU	C	119	-59.737	33.583	20.506	1.00	70.72
13012	OE1	GLU	C	119	-59.435	32.886	21.500	1.00	70.24
13013	OE2	GLU	C	119	-59.490	34.808	20.430	1.00	71.20
13014	C	GLU	C	119	-63.362	31.014	18.891	1.00	69.00
13015	O	GLU	C	119	-64.503	31.305	18.540	1.00	69.14
13016	N	GLU	C	120	-62.703	30.021	18.313	1.00	68.21
13017	CA	GLU	C	120	-63.401	29.246	17.282	1.00	67.56
13018	CB	GLU	C	120	-62.805	29.470	15.893	1.00	67.51
13019	CG	GLU	C	120	-63.862	29.756	14.832	1.00	68.37
13020	CD	GLU	C	120	-64.326	31.210	14.806	1.00	69.69
13021	OE1	GLU	C	120	-64.261	31.841	13.732	1.00	69.90
13022	OE2	GLU	C	120	-64.769	31.733	15.851	1.00	70.32
13023	C	GLU	C	120	-63.460	27.778	17.670	1.00	66.68
13024	O	GLU	C	120	-62.815	26.917	17.068	1.00	66.69
13025	N	ARG	C	121	-64.275	27.522	18.685	1.00	65.57
13026	CA	ARG	C	121	-64.354	26.222	19.335	1.00	64.49
13027	CB	ARG	C	121	-65.061	26.364	20.689	1.00	64.55
13028	CG	ARG	C	121	-64.452	27.442	21.585	1.00	64.75
13029	CD	ARG	C	121	-65.300	27.805	22.800	1.00	65.21
13030	NE	ARG	C	121	-65.021	26.952	23.950	1.00	65.00
13031	CZ	ARG	C	121	-65.920	26.630	24.877	1.00	66.10
13032	NH1	ARG	C	121	-67.163	27.087	24.789	1.00	65.99
13033	NH2	ARG	C	121	-65.582	25.845	25.894	1.00	65.23
13034	C	ARG	C	121	-65.012	25.111	18.538	1.00	63.57
13035	O	ARG	C	121	-65.839	25.345	17.660	1.00	63.20
13036	N	ILE	C	122	-64.598	23.890	18.855	1.00	62.51
13037	CA	ILE	C	122	-65.208	22.702	18.308	1.00	61.37
13038	CB	ILE	C	122	-64.399	21.478	18.736	1.00	61.26
13039	CG1	ILE	C	122	-62.913	21.829	18.716	1.00	60.66
13040	CD1	ILE	C	122	-62.009	20.698	19.115	1.00	60.52
13041	CG2	ILE	C	122	-64.685	20.295	17.815	1.00	61.13
13042	C	ILE	C	122	-66.597	22.694	18.928	1.00	60.55
13043	O	ILE	C	122	-66.759	23.084	20.080	1.00	60.58
13044	N	PRO	C	123	-67.604	22.276	18.174	1.00	59.69
13045	CA	PRO	C	123	-68.977	22.310	18.676	1.00	59.11
13046	CB	PRO	C	123	-69.817	22.019	17.426	1.00	58.99

**REPLACEMENT SHEET**  
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**FIGURE 3 IV**

A	B	C	D	E	F	G	H	I	J
13047	CG	PRO	C	123	-68.870	22.088	16.277	1.00	59.33
13048	CD	PRO	C	123	-67.523	21.724	16.813	1.00	59.59
13049	C	PRO	C	123	-69.231	21.228	19.706	1.00	58.59
13050	O	PRO	C	123	-68.406	20.341	19.924	1.00	58.31
13051	N	ASN	C	124	-70.373	21.325	20.363	1.00	58.45
13052	CA	ASN	C	124	-70.813	20.269	21.245	1.00	58.10
13053	CB	ASN	C	124	-71.924	20.760	22.162	1.00	58.65
13054	CG	ASN	C	124	-71.466	21.851	23.095	1.00	59.63
13055	OD1	ASN	C	124	-70.567	21.649	23.906	1.00	59.75
13056	ND2	ASN	C	124	-72.091	23.019	22.990	1.00	64.70
13057	C	ASN	C	124	-71.344	19.177	20.333	1.00	57.46
13058	O	ASN	C	124	-71.618	19.433	19.163	1.00	57.30
13059	N	ASN	C	125	-71.480	17.969	20.863	1.00	56.89
13060	CA	ASN	C	125	-71.981	16.833	20.094	1.00	56.19
13061	CB	ASN	C	125	-73.430	17.064	19.680	1.00	56.17
13062	CG	ASN	C	125	-74.289	17.504	20.846	1.00	56.48
13063	OD1	ASN	C	125	-74.937	18.551	20.798	1.00	56.88
13064	ND2	ASN	C	125	-74.284	16.710	21.915	1.00	56.45
13065	C	ASN	C	125	-71.098	16.504	18.900	1.00	55.61
13066	O	ASN	C	125	-71.574	16.143	17.833	1.00	55.57
13067	N	THR	C	126	-69.797	16.644	19.100	1.00	55.23
13068	CA	THR	C	126	-68.830	16.329	18.073	1.00	54.84
13069	CB	THR	C	126	-67.497	17.039	18.363	1.00	54.72
13070	OG1	THR	C	126	-67.605	18.412	17.970	1.00	54.23
13071	CG2	THR	C	126	-66.397	16.517	17.471	1.00	54.53
13072	C	THR	C	126	-68.667	14.819	18.042	1.00	54.86
13073	O	THR	C	126	-68.356	14.185	19.050	1.00	54.70
13074	N	GLN	C	127	-68.894	14.240	16.877	1.00	54.60
13075	CA	GLN	C	127	-68.852	12.803	16.762	1.00	54.57
13076	CB	GLN	C	127	-69.593	12.375	15.503	1.00	54.28
13077	CG	GLN	C	127	-71.073	12.662	15.594	1.00	53.62
13078	CD	GLN	C	127	-71.724	12.794	14.246	1.00	52.92
13079	OE1	GLN	C	127	-72.550	11.963	13.865	1.00	52.32
13080	NE2	GLN	C	127	-71.354	13.837	13.509	1.00	52.15
13081	C	GLN	C	127	-67.428	12.273	16.775	1.00	54.94
13082	O	GLN	C	127	-67.185	11.131	17.157	1.00	54.88
13083	N	TRP	C	128	-66.482	13.113	16.381	1.00	55.24
13084	CA	TRP	C	128	-65.099	12.676	16.320	1.00	55.48
13085	CB	TRP	C	128	-64.951	11.596	15.251	1.00	55.52
13086	CG	TRP	C	128	-63.633	10.934	15.266	1.00	56.77
13087	CD1	TRP	C	128	-62.667	11.014	14.313	1.00	58.86
13088	NE1	TRP	C	128	-61.577	10.259	14.677	1.00	59.53
13089	CE2	TRP	C	128	-61.828	9.677	15.890	1.00	58.49
13090	CD2	TRP	C	128	-63.115	10.080	16.289	1.00	57.94
13091	CE3	TRP	C	128	-63.611	9.612	17.509	1.00	58.71
13092	CZ3	TRP	C	128	-62.824	8.774	18.271	1.00	59.78
13093	CH2	TRP	C	128	-61.551	8.395	17.847	1.00	59.92
13094	CZ2	TRP	C	128	-61.035	8.835	16.660	1.00	59.64
13095	C	TRP	C	128	-64.156	13.823	15.992	1.00	55.45
13096	O	TRP	C	128	-64.452	14.658	15.136	1.00	55.42
13097	N	VAL	C	129	-63.018	13.843	16.671	1.00	55.32

**REPLACEMENT SHEET**  
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**FIGURE 3 IW**

A	B	C	D	E	F	G	H	I	J
13098	CA	VAL	C	129	-61.986	14.829	16.422	1.00	55.59
13099	CB	VAL	C	129	-61.949	15.905	17.531	1.00	55.60
13100	CG1	VAL	C	129	-61.742	15.267	18.884	1.00	55.55
13101	CG2	VAL	C	129	-60.864	16.940	17.255	1.00	56.02
13102	C	VAL	C	129	-60.653	14.095	16.335	1.00	55.72
13103	O	VAL	C	129	-60.476	13.047	16.954	1.00	55.44
13104	N	THR	C	130	-59.729	14.625	15.538	1.00	56.17
13105	CA	THR	C	130	-58.405	14.023	15.409	1.00	56.54
13106	CB	THR	C	130	-58.451	12.757	14.530	1.00	56.52
13107	OG1	THR	C	130	-57.128	12.217	14.393	1.00	56.16
13108	CG2	THR	C	130	-58.830	13.111	13.109	1.00	56.50
13109	C	THR	C	130	-57.358	15.001	14.878	1.00	56.96
13110	O	THR	C	130	-57.617	15.783	13.956	1.00	56.86
13111	N	TRP	C	131	-56.174	14.946	15.482	1.00	57.31
13112	CA	TRP	C	131	-55.056	15.785	15.081	1.00	57.40
13113	CB	TRP	C	131	-53.959	15.760	16.151	1.00	57.50
13114	CG	TRP	C	131	-54.317	16.396	17.461	1.00	58.30
13115	CD1	TRP	C	131	-54.499	15.762	18.664	1.00	58.41
13116	NE1	TRP	C	131	-54.807	16.681	19.639	1.00	58.17
13117	CE2	TRP	C	131	-54.818	17.934	19.083	1.00	58.67
13118	CD2	TRP	C	131	-54.506	17.793	17.716	1.00	58.57
13119	CE3	TRP	C	131	-54.453	18.946	16.921	1.00	58.81
13120	CZ3	TRP	C	131	-54.711	20.166	17.499	1.00	58.54
13121	CH2	TRP	C	131	-55.016	20.273	18.859	1.00	59.18
13122	CZ2	TRP	C	131	-55.072	19.173	19.667	1.00	59.24
13123	C	TRP	C	131	-54.446	15.275	13.784	1.00	57.38
13124	O	TRP	C	131	-54.501	14.082	13.486	1.00	56.87
13125	N	SER	C	132	-53.862	16.188	13.015	1.00	57.38
13126	CA	SER	C	132	-53.080	15.789	11.863	1.00	57.68
13127	CB	SER	C	132	-52.697	17.005	11.005	1.00	57.84
13128	OG	SER	C	132	-52.495	18.182	11.784	1.00	58.32
13129	C	SER	C	132	-51.849	15.095	12.449	1.00	57.53
13130	O	SER	C	132	-51.420	15.430	13.546	1.00	57.64
13131	N	PRO	C	133	-51.296	14.111	11.749	1.00	57.57
13132	CA	PRO	C	133	-50.139	13.365	12.266	1.00	57.76
13133	CB	PRO	C	133	-49.718	12.509	11.069	1.00	57.70
13134	CG	PRO	C	133	-50.994	12.317	10.311	1.00	57.42
13135	CD	PRO	C	133	-51.724	13.626	10.426	1.00	57.16
13136	C	PRO	C	133	-48.996	14.279	12.736	1.00	57.88
13137	O	PRO	C	133	-48.184	13.874	13.572	1.00	57.68
13138	N	VAL	C	134	-48.937	15.491	12.191	1.00	57.83
13139	CA	VAL	C	134	-47.950	16.480	12.610	1.00	57.77
13140	CB	VAL	C	134	-46.685	16.463	11.728	1.00	57.86
13141	CG1	VAL	C	134	-45.978	15.112	11.823	1.00	58.17
13142	CG2	VAL	C	134	-47.035	16.790	10.300	1.00	58.15
13143	C	VAL	C	134	-48.583	17.867	12.595	1.00	57.57
13144	O	VAL	C	134	-49.660	18.063	12.039	1.00	57.41
13145	N	GLY	C	135	-47.914	18.829	13.214	1.00	57.66
13146	CA	GLY	C	135	-48.456	20.169	13.302	1.00	57.49
13147	C	GLY	C	135	-49.556	20.207	14.343	1.00	57.41
13148	O	GLY	C	135	-49.412	19.628	15.415	1.00	57.15

**REPLACEMENT SHEET**  
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**FIGURE 3 IX**

A	B	C	D	E	F	G	H	I	J
13149	N	HIS	C	136	-50.668	20.865	14.020	1.00	57.40
13150	CA	HIS	C	136	-51.773	20.985	14.958	1.00	57.21
13151	CB	HIS	C	136	-51.468	22.047	16.021	1.00	57.41
13152	CG	HIS	C	136	-51.200	23.405	15.453	1.00	57.87
13153	ND1	HIS	C	136	-50.000	24.059	15.629	1.00	58.41
13154	CE1	HIS	C	136	-50.047	25.231	15.020	1.00	59.02
13155	NE2	HIS	C	136	-51.233	25.359	14.452	1.00	59.14
13156	CD2	HIS	C	136	-51.973	24.229	14.707	1.00	58.12
13157	C	HIS	C	136	-53.084	21.319	14.266	1.00	57.18
13158	O	HIS	C	136	-53.943	22.003	14.832	1.00	56.92
13159	N	LYS	C	137	-53.244	20.863	13.032	1.00	57.03
13160	CA	LYS	C	137	-54.523	21.054	12.380	1.00	56.76
13161	CB	LYS	C	137	-54.452	20.687	10.901	1.00	57.13
13162	CG	LYS	C	137	-53.463	21.525	10.120	1.00	57.71
13163	CD	LYS	C	137	-52.546	20.632	9.315	1.00	58.82
13164	CE	LYS	C	137	-53.113	20.322	7.953	1.00	59.49
13165	NZ	LYS	C	137	-52.678	21.354	6.968	1.00	60.71
13166	C	LYS	C	137	-55.475	20.127	13.105	1.00	56.27
13167	O	LYS	C	137	-55.052	19.210	13.814	1.00	56.04
13168	N	LEU	C	138	-56.765	20.364	12.937	1.00	55.81
13169	CA	LEU	C	138	-57.748	19.530	13.597	1.00	55.19
13170	CB	LEU	C	138	-58.337	20.289	14.789	1.00	55.17
13171	CG	LEU	C	138	-58.471	19.443	16.051	1.00	56.07
13172	CD1	LEU	C	138	-57.533	18.247	15.967	1.00	56.68
13173	CD2	LEU	C	138	-58.210	20.259	17.306	1.00	55.13
13174	C	LEU	C	138	-58.847	19.111	12.630	1.00	54.43
13175	O	LEU	C	138	-59.386	19.938	11.905	1.00	54.06
13176	N	ALA	C	139	-59.151	17.819	12.608	1.00	53.92
13177	CA	ALA	C	139	-60.272	17.307	11.824	1.00	53.53
13178	CB	ALA	C	139	-59.821	16.214	10.843	1.00	53.27
13179	C	ALA	C	139	-61.313	16.761	12.790	1.00	53.15
13180	O	ALA	C	139	-60.997	15.958	13.665	1.00	53.00
13181	N	TYR	C	140	-62.549	17.225	12.656	1.00	53.01
13182	CA	TYR	C	140	-63.622	16.731	13.504	1.00	52.78
13183	CB	TYR	C	140	-63.869	17.665	14.700	1.00	53.01
13184	CG	TYR	C	140	-64.420	19.026	14.342	1.00	52.54
13185	CD1	TYR	C	140	-65.787	19.241	14.228	1.00	52.06
13186	CE1	TYR	C	140	-66.291	20.492	13.904	1.00	51.90
13187	C2	TYR	C	140	-65.413	21.552	13.696	1.00	51.95
13188	OH	TYR	C	140	-65.882	22.805	13.368	1.00	50.71
13189	CE2	TYR	C	140	-64.059	21.359	13.814	1.00	51.61
13190	CD2	TYR	C	140	-63.568	20.102	14.136	1.00	52.80
13191	C	TYR	C	140	-64.906	16.535	12.718	1.00	52.60
13192	O	TYR	C	140	-65.132	17.186	11.698	1.00	52.33
13193	N	VAL	C	141	-65.749	15.628	13.208	1.00	52.44
13194	CA	VAL	C	141	-67.033	15.354	12.574	1.00	51.54
13195	CB	VAL	C	141	-67.191	13.870	12.258	1.00	51.37
13196	CG1	VAL	C	141	-66.079	13.422	11.339	1.00	50.66
13197	CG2	VAL	C	141	-68.543	13.601	11.623	1.00	50.88
13198	C	VAL	C	141	-68.169	15.835	13.466	1.00	51.43
13199	O	VAL	C	141	-68.195	15.557	14.663	1.00	51.69



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**FIGURE 3 IY**

A	B	C	D	E	F	G	H	I	J
13200	N	TRP	C	142	-69.103	16.572	12.883	1.00	51.26
13201	CA	TRP	C	142	-70.212	17.114	13.645	1.00	51.37
13202	CB	TRP	C	142	-69.836	18.493	14.207	1.00	51.31
13203	CG	TRP	C	142	-70.943	19.180	14.912	1.00	50.43
13204	CD1	TRP	C	142	-71.326	18.997	16.205	1.00	49.84
13205	NE1	TRP	C	142	-72.393	19.809	16.502	1.00	49.98
13206	CE2	TRP	C	142	-72.717	20.540	15.388	1.00	50.22
13207	CD2	TRP	C	142	-71.823	20.165	14.367	1.00	50.21
13208	CE3	TRP	C	142	-71.950	20.771	13.112	1.00	51.31
13209	CZ3	TRP	C	142	-72.947	21.722	12.920	1.00	51.29
13210	CH2	TRP	C	142	-73.819	22.069	13.956	1.00	51.73
13211	CZ2	TRP	C	142	-73.722	21.490	15.196	1.00	50.71
13212	C	TRP	C	142	-71.474	17.190	12.798	1.00	51.49
13213	O	TRP	C	142	-71.536	17.924	11.810	1.00	51.84
13214	N	ASN	C	143	-72.488	16.433	13.200	1.00	51.64
13215	CA	ASN	C	143	-73.736	16.351	12.453	1.00	51.37
13216	CB	ASN	C	143	-74.291	17.737	12.150	1.00	51.75
13217	CG	ASN	C	143	-75.197	18.258	13.241	1.00	52.46
13218	OD1	ASN	C	143	-75.867	19.277	13.062	1.00	53.41
13219	ND2	ASN	C	143	-75.230	17.565	14.376	1.00	53.62
13220	C	ASN	C	143	-73.513	15.575	11.167	1.00	51.06
13221	O	ASN	C	143	-74.200	15.785	10.172	1.00	50.49
13222	N	ASN	C	144	-72.523	14.691	11.209	1.00	51.08
13223	CA	ASN	C	144	-72.202	13.797	10.101	1.00	51.15
13224	CB	ASN	C	144	-73.462	13.126	9.555	1.00	50.84
13225	CG	ASN	C	144	-73.999	12.047	10.484	1.00	50.29
13226	OD1	ASN	C	144	-74.584	11.063	10.036	1.00	50.27
13227	ND2	ASN	C	144	-73.805	12.230	11.778	1.00	48.07
13228	C	ASN	C	144	-71.404	14.447	8.973	1.00	51.59
13229	O	ASN	C	144	-71.328	13.904	7.866	1.00	51.44
13230	N	ASP	C	145	-70.813	15.604	9.260	1.00	51.81
13231	CA	ASP	C	145	-69.983	16.296	8.283	1.00	52.26
13232	CB	ASP	C	145	-70.640	17.601	7.815	1.00	52.15
13233	CG	ASP	C	145	-71.764	17.362	6.811	1.00	50.96
13234	OD1	ASP	C	145	-72.810	18.029	6.926	1.00	50.59
13235	OD2	ASP	C	145	-71.699	16.526	5.884	1.00	48.94
13236	C	ASP	C	145	-68.578	16.547	8.819	1.00	52.86
13237	O	ASP	C	145	-68.357	16.618	10.023	1.00	52.66
13238	N	ILE	C	146	-67.622	16.666	7.908	1.00	53.67
13239	CA	ILE	C	146	-66.237	16.889	8.285	1.00	53.87
13240	CB	ILE	C	146	-65.327	16.195	7.286	1.00	53.95
13241	CG1	ILE	C	146	-65.826	14.767	7.057	1.00	53.11
13242	CD1	ILE	C	146	-64.983	13.990	6.120	1.00	52.39
13243	CG2	ILE	C	146	-63.868	16.250	7.748	1.00	53.60
13244	C	ILE	C	146	-65.895	18.368	8.334	1.00	54.42
13245	O	ILE	C	146	-66.372	19.153	7.528	1.00	54.37
13246	N	TYR	C	147	-65.086	18.742	9.311	1.00	55.14
13247	CA	TYR	C	147	-64.598	20.102	9.414	1.00	55.88
13248	CB	TYR	C	147	-65.287	20.852	10.551	1.00	55.87
13249	CG	TYR	C	147	-66.776	21.024	10.347	1.00	55.84
13250	CD1	TYR	C	147	-67.291	22.200	9.819	1.00	54.69

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**FIGURE 3 IZ**

A	B	C	D	E	F	G	H	I	J
13251	OE1	TYR	C	147	-68.644	22.366	9.628	1.00	54.24
13252	CZ	TYR	C	147	-69.512	21.345	9.957	1.00	55.37
13253	OH	TYR	C	147	-70.872	21.513	9.764	1.00	55.23
13254	OE2	TYR	C	147	-69.028	20.162	10.489	1.00	55.28
13255	CD2	TYR	C	147	-67.667	20.007	10.679	1.00	55.21
13256	C	TYR	C	147	-63.093	20.057	9.630	1.00	56.38
13257	O	TYR	C	147	-62.556	19.073	10.150	1.00	56.37
13258	N	VAL	C	148	-62.406	21.106	9.192	1.00	57.10
13259	CA	VAL	C	148	-60.964	21.201	9.402	1.00	57.64
13260	CB	VAL	C	148	-60.166	21.037	8.104	1.00	57.56
13261	CG1	VAL	C	148	-58.687	21.228	8.389	1.00	57.70
13262	CG2	VAL	C	148	-60.425	19.678	7.478	1.00	57.68
13263	C	VAL	C	148	-60.570	22.533	10.033	1.00	57.92
13264	O	VAL	C	148	-60.899	23.598	9.516	1.00	58.05
13265	N	LYS	C	149	-59.891	22.464	11.170	1.00	58.25
13266	CA	LYS	C	149	-59.353	23.654	11.792	1.00	58.62
13267	CB	LYS	C	149	-59.876	23.826	13.220	1.00	58.69
13268	CG	LYS	C	149	-61.085	24.741	13.265	1.00	58.34
13269	CD	LYS	C	149	-61.901	24.600	14.520	1.00	59.13
13270	CE	LYS	C	149	-63.294	25.159	14.274	1.00	60.03
13271	NZ	LYS	C	149	-64.079	25.410	15.511	1.00	60.87
13272	C	LYS	C	149	-57.832	23.592	11.721	1.00	58.96
13273	O	LYS	C	149	-57.202	22.747	12.369	1.00	58.81
13274	N	ILE	C	150	-57.257	24.462	10.887	1.00	59.42
13275	CA	ILE	C	150	-55.812	24.515	10.680	1.00	59.81
13276	CB	ILE	C	150	-55.467	25.272	9.379	1.00	60.08
13277	CG1	ILE	C	150	-56.066	24.556	8.159	1.00	59.91
13278	CD1	ILE	C	150	-55.435	23.217	7.867	1.00	59.08
13279	CG2	ILE	C	150	-53.949	25.425	9.212	1.00	60.27
13280	C	ILE	C	150	-55.180	25.174	11.893	1.00	60.09
13281	O	ILE	C	150	-54.076	24.829	12.301	1.00	60.07
13282	N	GLU	C	151	-55.894	26.127	12.473	1.00	60.72
13283	CA	GLU	C	151	-55.458	26.743	13.719	1.00	61.36
13284	CB	GLU	C	151	-54.933	28.171	13.509	1.00	61.42
13285	CG	GLU	C	151	-53.838	28.331	12.458	1.00	61.94
13286	CD	GLU	C	151	-52.553	27.587	12.785	1.00	62.45
13287	OE1	GLU	C	151	-52.356	27.199	13.953	1.00	62.15
13288	OE2	GLU	C	151	-51.733	27.386	11.860	1.00	63.16
13289	C	GLU	C	151	-56.628	26.732	14.703	1.00	61.64
13290	O	GLU	C	151	-57.732	27.179	14.380	1.00	61.23
13291	N	PRO	C	152	-56.381	26.193	15.892	1.00	62.04
13292	CA	PRO	C	152	-57.387	26.113	16.954	1.00	62.45
13293	CB	PRO	C	152	-56.541	25.854	18.196	1.00	62.32
13294	CG	PRO	C	152	-55.401	25.044	17.678	1.00	62.48
13295	CD	PRO	C	152	-55.102	25.586	16.300	1.00	62.14
13296	C	PRO	C	152	-58.233	27.378	17.136	1.00	62.92
13297	O	PRO	C	152	-59.417	27.267	17.461	1.00	62.99
13298	N	ASN	C	153	-57.654	28.558	16.945	1.00	63.19
13299	CA	ASN	C	153	-58.444	29.781	17.090	1.00	63.80
13300	CB	ASN	C	153	-57.665	30.896	17.815	1.00	63.84
13301	CG	ASN	C	153	-56.339	31.231	17.150	1.00	64.51

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**FIGURE 3 JA**

A	B	C	D	E	F	G	H	I	J
13302	OD1	ASN	C	153	-55.695	32.218	17.507	1.00	64.68
13303	ND2	ASN	C	153	-55.921	30.409	16.188	1.00	65.33
13304	C	ASN	C	153	-59.087	30.284	15.790	1.00	63.87
13305	O	ASN	C	153	-59.859	31.238	15.806	1.00	64.01
13306	N	LEU	C	154	-58.790	29.616	14.679	1.00	63.96
13307	CA	LEU	C	154	-59.337	29.993	13.376	1.00	64.19
13308	CB	LEU	C	154	-58.359	29.605	12.259	1.00	64.36
13309	CG	LEU	C	154	-57.491	30.702	11.634	1.00	64.94
13310	CD1	LEU	C	154	-57.018	31.723	12.664	1.00	66.40
13311	CD2	LEU	C	154	-56.308	30.091	10.902	1.00	66.34
13312	C	LEU	C	154	-60.701	29.373	13.075	1.00	64.11
13313	O	LEU	C	154	-61.042	28.318	13.606	1.00	63.97
13314	N	PRO	C	155	-61.485	30.052	12.238	1.00	64.06
13315	CA	PRO	C	155	-62.754	29.510	11.750	1.00	64.03
13316	CB	PRO	C	155	-63.240	30.578	10.765	1.00	64.17
13317	CG	PRO	C	155	-62.588	31.833	11.221	1.00	64.13
13318	CD	PRO	C	155	-61.239	31.415	11.738	1.00	64.18
13319	C	PRO	C	155	-62.516	28.199	11.016	1.00	63.94
13320	O	PRO	C	155	-61.470	28.006	10.389	1.00	63.61
13321	N	SER	C	156	-63.501	27.311	11.084	1.00	63.72
13322	CA	SER	C	156	-63.365	25.985	10.508	1.00	63.40
13323	CB	SER	C	156	-64.247	25.008	11.278	1.00	63.45
13324	OG	SER	C	156	-63.555	23.796	11.492	1.00	64.22
13325	C	SER	C	156	-63.694	25.920	9.018	1.00	62.88
13326	O	SER	C	156	-64.485	26.711	8.512	1.00	62.47
13327	N	TYR	C	157	-63.065	24.970	8.330	1.00	62.46
13328	CA	TYR	C	157	-63.328	24.714	6.918	1.00	62.31
13329	CB	TYR	C	157	-62.032	24.383	6.172	1.00	62.70
13330	CG	TYR	C	157	-61.109	25.556	5.981	1.00	63.80
13331	CD1	TYR	C	157	-61.433	26.574	5.099	1.00	64.98
13332	CE1	TYR	C	157	-60.595	27.657	4.919	1.00	66.09
13333	CZ	TYR	C	157	-59.418	27.732	5.627	1.00	66.66
13334	OH	TYR	C	157	-58.588	28.810	5.444	1.00	67.19
13335	CE2	TYR	C	157	-59.069	26.729	6.512	1.00	66.54
13336	CD2	TYR	C	157	-59.916	25.649	6.685	1.00	64.83
13337	C	TYR	C	157	-64.270	23.522	6.807	1.00	61.61
13338	O	TYR	C	157	-63.955	22.428	7.271	1.00	61.25
13339	N	ARG	C	158	-65.419	23.726	6.181	1.00	60.98
13340	CA	ARG	C	158	-66.393	22.647	6.057	1.00	60.38
13341	CB	ARG	C	158	-67.811	23.194	6.220	1.00	60.32
13342	CG	ARG	C	158	-68.887	22.148	6.067	1.00	60.13
13343	CD	ARG	C	158	-70.289	22.689	6.231	1.00	60.55
13344	NE	ARG	C	158	-71.293	21.657	6.004	1.00	59.93
13345	CZ	ARG	C	158	-72.528	21.705	6.481	1.00	60.15
13346	NH1	ARG	C	158	-73.379	20.719	6.216	1.00	59.78
13347	NH2	ARG	C	158	-72.918	22.741	7.218	1.00	58.83
13348	C	ARG	C	158	-66.266	21.863	4.749	1.00	59.75
13349	O	ARG	C	158	-66.643	22.354	3.693	1.00	59.93
13350	N	ILE	C	159	-65.749	20.643	4.838	1.00	59.20
13351	CA	ILE	C	159	-65.558	19.775	3.671	1.00	58.45
13352	CB	ILE	C	159	-64.607	18.600	4.017	1.00	58.57

**REPLACEMENT SHEET**  
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**FIGURE 3 JB**

A	B	C	D	E	F	G	H	I	J
13353	CG1	ILE	C	159	-63.287	19.122	4.592	1.00	58.50
13354	CD1	ILE	C	159	-63.306	19.304	6.083	1.00	58.48
13355	CG2	ILE	C	159	-64.353	17.719	2.800	1.00	58.49
13356	C	ILE	C	159	-66.866	19.241	3.083	1.00	57.81
13357	O	ILE	C	159	-67.053	19.271	1.866	1.00	58.16
13358	N	THR	C	160	-67.771	18.759	3.936	1.00	57.01
13359	CA	THR	C	160	-69.032	18.178	3.450	1.00	56.14
13360	CB	THR	C	160	-69.153	16.680	3.827	1.00	56.00
13361	OG1	THR	C	160	-69.057	16.522	5.250	1.00	56.18
13362	CG2	THR	C	160	-67.977	15.890	3.296	1.00	55.80
13363	C	THR	C	160	-70.298	18.921	3.886	1.00	55.68
13364	O	THR	C	160	-70.305	19.655	4.873	1.00	55.61
13365	N	TRP	C	161	-71.375	18.694	3.142	1.00	54.98
13366	CA	TRP	C	161	-72.648	19.349	3.390	1.00	54.68
13367	CB	TRP	C	161	-72.805	20.553	2.461	1.00	55.08
13368	CG	TRP	C	161	-71.580	21.354	2.378	1.00	55.56
13369	CD1	TRP	C	161	-70.367	20.951	1.897	1.00	55.52
13370	NE1	TRP	C	161	-69.459	21.977	2.003	1.00	55.96
13371	CE2	TRP	C	161	-70.081	23.064	2.562	1.00	56.02
13372	CD2	TRP	C	161	-71.418	22.701	2.811	1.00	55.85
13373	CE3	TRP	C	161	-72.274	23.648	3.389	1.00	56.89
13374	CZ3	TRP	C	161	-71.779	24.904	3.690	1.00	57.47
13375	CH2	TRP	C	161	-70.448	25.234	3.428	1.00	57.78
13376	CZ2	TRP	C	161	-69.582	24.329	2.869	1.00	57.05
13377	C	TRP	C	161	-73.802	18.401	3.137	1.00	53.98
13378	O	TRP	C	161	-74.955	18.812	3.138	1.00	53.75
13379	N	THR	C	162	-73.489	17.135	2.903	1.00	53.53
13380	CA	THR	C	162	-74.520	16.139	2.644	1.00	52.88
13381	CB	THR	C	162	-74.123	15.294	1.420	1.00	53.01
13382	OG1	THR	C	162	-72.734	14.954	1.507	1.00	52.69
13383	CG2	THR	C	162	-74.176	16.134	0.155	1.00	53.59
13384	C	THR	C	162	-74.789	15.248	3.869	1.00	52.40
13385	O	THR	C	162	-75.542	14.287	3.792	1.00	52.03
13386	N	GLY	C	163	-74.169	15.575	5.000	1.00	52.20
13387	CA	GLY	C	163	-74.321	14.780	6.213	1.00	51.36
13388	C	GLY	C	163	-75.720	14.812	6.799	1.00	50.71
13389	O	GLY	C	163	-76.276	15.693	7.019	1.00	50.76
13390	N	LYS	C	164	-76.288	13.632	7.051	1.00	49.94
13391	CA	LYS	C	164	-77.642	13.528	7.599	1.00	49.15
13392	CB	LYS	C	164	-78.682	13.626	6.478	1.00	49.20
13393	CG	LYS	C	164	-80.096	13.243	6.890	1.00	50.16
13394	CD	LYS	C	164	-81.170	14.082	6.179	1.00	52.16
13395	CE	LYS	C	164	-81.338	15.453	6.868	1.00	54.24
13396	NZ	LYS	C	164	-82.688	16.088	6.672	1.00	54.51
13397	C	LYS	C	164	-77.888	12.290	8.495	1.00	48.51
13398	O	LYS	C	164	-77.695	11.140	8.082	1.00	47.95
13399	N	GLU	C	165	-78.326	12.559	9.723	1.00	47.71
13400	CA	GLU	C	165	-78.614	11.536	10.727	1.00	47.19
13401	CB	GLU	C	165	-79.580	12.099	11.776	1.00	47.47
13402	CG	GLU	C	165	-79.630	11.332	13.092	1.00	49.01
13403	CD	GLU	C	165	-79.997	12.232	14.260	1.00	51.41

**REPLACEMENT SHEET**  
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**FIGURE 3 JC**

A	B	C	D	E	F	G	H	I	J
13404	OE1	GLU	C	165	-81.175	12.615	14.381	1.00	52.87
13405	OE2	GLU	C	165	-79.102	12.589	15.048	1.00	53.74
13406	C	GLU	C	165	-79.180	10.243	10.155	1.00	46.25
13407	O	GLU	C	165	-80.220	10.249	9.504	1.00	45.87
13408	N	ASN	C	166	-78.481	9.141	10.423	1.00	45.49
13409	CA	ASN	C	166	-78.891	7.800	9.999	1.00	45.03
13410	CB	ASN	C	166	-80.239	7.395	10.612	1.00	45.31
13411	CG	ASN	C	166	-80.312	7.640	12.103	1.00	45.21
13412	OD1	ASN	C	166	-79.403	7.285	12.858	1.00	44.24
13413	ND2	ASN	C	166	-81.409	8.251	12.538	1.00	45.18
13414	C	ASN	C	166	-78.982	7.583	8.501	1.00	44.76
13415	O	ASN	C	166	-79.366	6.503	8.062	1.00	44.58
13416	N	ILE	C	167	-78.643	8.596	7.710	1.00	44.44
13417	CA	ILE	C	167	-78.720	8.461	6.262	1.00	43.81
13418	CB	ILE	C	167	-79.562	9.586	5.680	1.00	43.95
13419	CG1	ILE	C	167	-81.010	9.436	6.156	1.00	43.48
13420	CD1	ILE	C	167	-81.642	8.087	5.791	1.00	43.86
13421	CG2	ILE	C	167	-79.482	9.575	4.163	1.00	42.86
13422	C	ILE	C	167	-77.349	8.393	5.590	1.00	43.65
13423	O	ILE	C	167	-77.022	7.423	4.909	1.00	43.28
13424	N	ILE	C	168	-76.552	9.438	5.756	1.00	43.61
13425	CA	ILE	C	168	-75.218	9.420	5.181	1.00	43.23
13426	CB	ILE	C	168	-75.126	10.230	3.843	1.00	43.69
13427	CG1	ILE	C	168	-74.691	11.666	4.102	1.00	42.79
13428	CD1	ILE	C	168	-73.217	11.872	3.887	1.00	42.78
13429	CG2	ILE	C	168	-76.413	10.127	2.985	1.00	42.05
13430	C	ILE	C	168	-74.177	9.881	6.197	1.00	43.21
13431	O	ILE	C	168	-74.377	10.860	6.930	1.00	42.93
13432	N	TYR	C	169	-73.065	9.156	6.236	1.00	42.75
13433	CA	TYR	C	169	-72.011	9.450	7.180	1.00	42.82
13434	CB	TYR	C	169	-71.712	8.229	8.064	1.00	43.22
13435	CG	TYR	C	169	-72.924	7.570	8.671	1.00	44.10
13436	CD1	TYR	C	169	-73.862	6.936	7.870	1.00	45.21
13437	CE1	TYR	C	169	-74.973	6.331	8.416	1.00	46.11
13438	CZ	TYR	C	169	-75.157	6.339	9.788	1.00	46.33
13439	OH	TYR	C	169	-76.267	5.719	10.311	1.00	46.34
13440	CE2	TYR	C	169	-74.237	6.959	10.615	1.00	45.49
13441	CD2	TYR	C	169	-73.125	7.570	10.051	1.00	45.20
13442	C	TYR	C	169	-70.724	9.893	6.491	1.00	42.51
13443	O	TYR	C	169	-70.168	9.170	5.659	1.00	41.77
13444	N	ASN	C	170	-70.250	11.077	6.872	1.00	42.19
13445	CA	ASN	C	170	-68.988	11.592	6.377	1.00	42.04
13446	CB	ASN	C	170	-69.160	13.017	5.853	1.00	41.71
13447	CG	ASN	C	170	-70.039	13.079	4.609	1.00	42.53
13448	OD1	ASN	C	170	-69.808	12.350	3.646	1.00	42.46
13449	ND2	ASN	C	170	-71.059	13.941	4.631	1.00	41.76
13450	C	ASN	C	170	-67.935	11.547	7.482	1.00	42.00
13451	O	ASN	C	170	-68.083	12.198	8.515	1.00	42.30
13452	N	GLY	C	171	-66.986	10.759	7.273	1.00	41.64
13453	CA	GLY	C	171	-65.807	10.670	8.236	1.00	41.13
13454	C	GLY	C	171	-66.058	9.727	9.399	1.00	40.95

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**FIGURE 3 JD**

A	B	C	D	E	F	G	H	I	J
13455	O	GLY	C	171	-65.154	9.461	10.193	1.00	40.62
13456	N	ILE	C	172	-67.286	9.228	9.516	1.00	40.57
13457	CA	ILE	C	172	-67.624	8.289	10.578	1.00	39.79
13458	CB	ILE	C	172	-68.451	8.973	11.661	1.00	39.90
13459	CG1	ILE	C	172	-69.562	9.796	11.022	1.00	39.26
13460	CD1	ILE	C	172	-70.532	10.354	12.003	1.00	38.29
13461	CG2	ILE	C	172	-67.563	9.856	12.540	1.00	39.02
13462	C	ILE	C	172	-68.404	7.136	9.996	1.00	39.77
13463	O	ILE	C	172	-69.107	7.300	9.002	1.00	39.81
13464	N	THR	C	173	-68.276	5.971	10.619	1.00	39.50
13465	CA	THR	C	173	-68.964	4.773	10.169	1.00	39.42
13466	CB	THR	C	173	-68.200	3.524	10.633	1.00	39.64
13467	OG1	THR	C	173	-67.854	3.665	12.014	1.00	40.82
13468	CG2	THR	C	173	-66.831	3.421	9.955	1.00	39.55
13469	C	THR	C	173	-70.394	4.703	10.709	1.00	39.41
13470	O	THR	C	173	-70.742	5.398	11.666	1.00	39.69
13471	N	ASP	C	174	-71.218	3.875	10.068	1.00	39.14
13472	CA	ASP	C	174	-72.564	3.584	10.531	1.00	39.00
13473	CB	ASP	C	174	-73.484	3.230	9.355	1.00	39.09
13474	CG	ASP	C	174	-73.069	1.954	8.662	1.00	38.75
13475	OD1	ASP	C	174	-73.925	1.261	8.079	1.00	39.17
13476	OD2	ASP	C	174	-71.899	1.549	8.661	1.00	39.00
13477	C	ASP	C	174	-72.423	2.377	11.458	1.00	38.90
13478	O	ASP	C	174	-71.294	1.956	11.755	1.00	38.94
13479	N	TRP	C	175	-73.548	1.788	11.874	1.00	38.32
13480	CA	TRP	C	175	-73.495	0.669	12.826	1.00	37.39
13481	CB	TRP	C	175	-74.881	0.130	13.249	1.00	36.66
13482	CG	TRP	C	175	-74.755	-0.781	14.444	1.00	34.76
13483	CD1	TRP	C	175	-74.894	-0.437	15.767	1.00	33.61
13484	NE1	TRP	C	175	-74.656	-1.529	16.570	1.00	32.83
13485	CE2	TRP	C	175	-74.338	-2.603	15.781	1.00	33.34
13486	CD2	TRP	C	175	-74.393	-2.168	14.435	1.00	33.17
13487	CE3	TRP	C	175	-74.102	-3.089	13.426	1.00	33.10
13488	CZ3	TRP	C	175	-73.784	-4.403	13.778	1.00	35.95
13489	CH2	TRP	C	175	-73.749	-4.808	15.131	1.00	33.36
13490	CZ2	TRP	C	175	-74.021	-3.923	16.139	1.00	33.92
13491	C	TRP	C	175	-72.602	-0.481	12.405	1.00	37.52
13492	O	TRP	C	175	-71.697	-0.811	13.137	1.00	37.46
13493	N	VAL	C	176	-72.860	-1.120	11.265	1.00	38.02
13494	CA	VAL	C	176	-72.031	-2.269	10.873	1.00	38.72
13495	CB	VAL	C	176	-72.546	-3.046	9.649	1.00	38.61
13496	CG1	VAL	C	176	-72.889	-2.113	8.498	1.00	38.51
13497	CG2	VAL	C	176	-73.685	-3.927	10.027	1.00	40.15
13498	C	VAL	C	176	-70.568	-1.972	10.591	1.00	38.82
13499	O	VAL	C	176	-69.719	-2.795	10.886	1.00	38.67
13500	N	TYR	C	177	-70.277	-0.833	9.979	1.00	39.42
13501	CA	TYR	C	177	-68.887	-0.495	9.698	1.00	40.38
13502	CB	TYR	C	177	-68.762	0.747	8.802	1.00	40.37
13503	CG	TYR	C	177	-68.581	0.387	7.356	1.00	42.38
13504	CD1	TYR	C	177	-69.664	0.341	6.491	1.00	42.20
13505	CE1	TYR	C	177	-69.499	-0.006	5.164	1.00	43.28

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**FIGURE 3 JE**

A	B	C	D	E	F	G	H	I	J
13506	CZ	TYR	C	177	-68.245	-0.330	4.690	1.00	44.13
13507	OH	TYR	C	177	-68.083	-0.679	3.366	1.00	44.97
13508	CE2	TYR	C	177	-67.152	-0.300	5.528	1.00	44.63
13509	CD2	TYR	C	177	-67.323	0.054	6.857	1.00	43.88
13510	C	TYR	C	177	-68.126	-0.296	10.991	1.00	40.39
13511	O	TYR	C	177	-66.966	-0.692	11.092	1.00	40.42
13512	N	GLU	C	178	-68.784	0.323	11.973	1.00	40.72
13513	CA	GLU	C	178	-68.159	0.550	13.264	1.00	40.73
13514	CB	GLU	C	178	-69.032	1.401	14.184	1.00	40.68
13515	CG	GLU	C	178	-68.530	1.344	15.622	1.00	41.20
13516	CD	GLU	C	178	-69.296	2.227	16.588	1.00	42.64
13517	OE1	GLU	C	178	-70.257	2.912	16.159	1.00	43.45
13518	OE2	GLU	C	178	-68.924	2.237	17.785	1.00	41.11
13519	C	GLU	C	178	-67.864	-0.749	13.985	1.00	41.01
13520	O	GLU	C	178	-66.825	-0.888	14.632	1.00	41.00
13521	N	GLU	C	179	-68.783	-1.701	13.879	1.00	40.73
13522	CA	GLU	C	179	-68.669	-2.926	14.658	1.00	40.70
13523	CB	GLU	C	179	-70.059	-3.363	15.140	1.00	40.46
13524	CG	GLU	C	179	-70.098	-4.669	15.914	1.00	40.01
13525	CD	GLU	C	179	-69.334	-4.596	17.216	1.00	39.94
13526	OE1	GLU	C	179	-68.845	-5.642	17.661	1.00	40.92
13527	OE2	GLU	C	179	-69.212	-3.498	17.796	1.00	40.49
13528	C	GLU	C	179	-67.987	-4.086	13.948	1.00	40.96
13529	O	GLU	C	179	-67.259	-4.848	14.577	1.00	40.57
13530	N	GLU	C	180	-68.210	-4.226	12.646	1.00	41.08
13531	CA	GLU	C	180	-67.698	-5.399	11.957	1.00	41.75
13532	CB	GLU	C	180	-68.853	-6.198	11.366	1.00	41.10
13533	CG	GLU	C	180	-69.966	-6.475	12.351	1.00	41.62
13534	CD	GLU	C	180	-69.577	-7.514	13.391	1.00	41.25
13535	OE1	GLU	C	180	-68.369	-7.684	13.650	1.00	41.50
13536	OE2	GLU	C	180	-70.482	-8.167	13.937	1.00	41.06
13537	C	GLU	C	180	-66.619	-5.186	10.895	1.00	42.58
13538	O	GLU	C	180	-65.956	-6.142	10.476	1.00	43.00
13539	N	VAL	C	181	-66.435	-3.958	10.445	1.00	43.43
13540	CA	VAL	C	181	-65.456	-3.729	9.398	1.00	43.85
13541	CB	VAL	C	181	-66.074	-3.018	8.188	1.00	44.18
13542	CG1	VAL	C	181	-64.996	-2.678	7.174	1.00	44.20
13543	CG2	VAL	C	181	-67.141	-3.893	7.557	1.00	43.81
13544	C	VAL	C	181	-64.269	-2.943	9.898	1.00	44.14
13545	O	VAL	C	181	-63.135	-3.408	9.816	1.00	44.39
13546	N	PHE	C	182	-64.519	-1.755	10.433	1.00	44.37
13547	CA	PHE	C	182	-63.422	-0.908	10.887	1.00	44.60
13548	CB	PHE	C	182	-63.721	0.567	10.595	1.00	44.50
13549	CG	PHE	C	182	-63.745	0.919	9.124	1.00	45.31
13550	CD1	PHE	C	182	-63.304	0.026	8.165	1.00	45.26
13551	CE1	PHE	C	182	-63.321	0.356	6.829	1.00	45.23
13552	CZ	PHE	C	182	-63.783	1.585	6.421	1.00	45.77
13553	CE2	PHE	C	182	-64.227	2.489	7.358	1.00	45.85
13554	CD2	PHE	C	182	-64.200	2.157	8.707	1.00	45.64
13555	C	PHE	C	182	-63.093	-1.057	12.379	1.00	45.09
13556	O	PHE	C	182	-62.014	-0.636	12.820	1.00	45.26

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**FIGURE 3 JF**

A	B	C	D	E	F	G	H	I	J
13557	N	SER	C	183	-64.010	-1.629	13.162	1.00	44.85
13558	CA	SER	C	183	-63.802	-1.710	14.602	1.00	44.77
13559	CB	SER	C	183	-62.708	-2.716	14.966	1.00	44.65
13560	OG	SER	C	183	-63.239	-4.027	15.116	1.00	44.40
13561	C	SER	C	183	-63.430	-0.338	15.129	1.00	44.82
13562	O	SER	C	183	-62.626	-0.206	16.043	1.00	45.17
13563	N	ALA	C	184	-64.012	0.690	14.541	1.00	45.06
13564	CA	ALA	C	184	-63.747	2.049	14.981	1.00	45.29
13565	CB	ALA	C	184	-62.417	2.538	14.442	1.00	45.24
13566	C	ALA	C	184	-64.866	2.912	14.458	1.00	45.50
13567	O	ALA	C	184	-65.577	2.504	13.544	1.00	44.92
13568	N	TYR	C	185	-65.025	4.095	15.050	1.00	45.78
13569	CA	TYR	C	185	-66.040	5.035	14.623	1.00	45.98
13570	CB	TYR	C	185	-66.378	5.986	15.762	1.00	45.75
13571	CG	TYR	C	185	-67.643	6.790	15.544	1.00	44.28
13572	CD1	TYR	C	185	-67.828	8.011	16.175	1.00	43.24
13573	CE1	TYR	C	185	-68.987	8.731	15.997	1.00	42.97
13574	CZ	TYR	C	185	-69.973	8.234	15.175	1.00	42.29
13575	OH	TYR	C	185	-71.129	8.947	14.990	1.00	43.54
13576	CE2	TYR	C	185	-69.808	7.042	14.532	1.00	42.00
13577	CD2	TYR	C	185	-68.650	6.322	14.718	1.00	42.34
13578	C	TYR	C	185	-65.482	5.853	13.487	1.00	46.74
13579	O	TYR	C	185	-66.169	6.132	12.500	1.00	46.83
13580	N	SER	C	186	-64.220	6.242	13.653	1.00	47.74
13581	CA	SER	C	186	-63.517	7.088	12.700	1.00	48.47
13582	CB	SER	C	186	-62.090	7.356	13.178	1.00	48.70
13583	OG	SER	C	186	-61.384	8.148	12.229	1.00	49.39
13584	C	SER	C	186	-63.458	6.498	11.311	1.00	48.68
13585	O	SER	C	186	-63.246	5.304	11.143	1.00	49.06
13586	N	ALA	C	187	-63.661	7.353	10.323	1.00	49.12
13587	CA	ALA	C	187	-63.509	6.983	8.924	1.00	50.17
13588	CB	ALA	C	187	-64.866	6.728	8.260	1.00	49.98
13589	C	ALA	C	187	-62.778	8.141	8.255	1.00	50.51
13590	O	ALA	C	187	-63.133	8.573	7.164	1.00	50.64
13591	N	LEU	C	188	-61.764	8.644	8.955	1.00	51.24
13592	CA	LEU	C	188	-60.936	9.746	8.491	1.00	51.93
13593	CB	LEU	C	188	-61.135	10.969	9.376	1.00	51.74
13594	CG	LEU	C	188	-62.347	11.804	9.026	1.00	51.76
13595	CD1	LEU	C	188	-62.507	12.930	10.028	1.00	52.13
13596	CD2	LEU	C	188	-62.173	12.337	7.622	1.00	52.08
13597	C	LEU	C	188	-59.482	9.331	8.573	1.00	52.48
13598	O	LEU	C	188	-59.059	8.751	9.570	1.00	52.33
13599	N	TRP	C	189	-58.719	9.639	7.528	1.00	53.20
13600	CA	TRP	C	189	-57.304	9.285	7.481	1.00	53.61
13601	CB	TRP	C	189	-57.094	8.045	6.615	1.00	53.83
13602	CG	TRP	C	189	-57.881	6.857	7.072	1.00	54.47
13603	CD1	TRP	C	189	-57.503	5.930	8.004	1.00	54.57
13604	NE1	TRP	C	189	-58.490	4.986	8.159	1.00	53.87
13605	CE2	TRP	C	189	-59.531	5.292	7.326	1.00	54.72
13606	CD2	TRP	C	189	-59.182	6.468	6.629	1.00	54.66
13607	CE3	TRP	C	189	-60.092	6.988	5.702	1.00	55.32



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**FIGURE 3 JG**

A	B	C	D	E	F	G	H	I	J
13608	CZ3	TRP	C	189	-61.297	6.330	5.504	1.00	54.99
13609	CH2	TRP	C	189	-61.613	5.168	6.213	1.00	54.89
13610	CZ2	TRP	C	189	-60.748	4.634	7.128	1.00	55.32
13611	C	TRP	C	189	-56.453	10.440	6.952	1.00	54.18
13612	O	TRP	C	189	-56.533	10.799	5.775	1.00	53.89
13613	N	TRP	C	190	-55.660	11.031	7.841	1.00	54.56
13614	CA	TRP	C	190	-54.733	12.091	7.479	1.00	54.79
13615	CB	TRP	C	190	-54.220	12.786	8.730	1.00	54.74
13616	CG	TRP	C	190	-55.093	13.804	9.370	1.00	54.58
13617	CD1	TRP	C	190	-55.765	13.672	10.547	1.00	54.42
13618	NE1	TRP	C	190	-56.433	14.834	10.845	1.00	53.90
13619	CE2	TRP	C	190	-56.184	15.752	9.861	1.00	53.77
13620	CD2	TRP	C	190	-55.332	15.139	8.921	1.00	53.97
13621	CE3	TRP	C	190	-54.923	15.879	7.809	1.00	54.28
13622	CZ3	TRP	C	190	-55.374	17.181	7.672	1.00	54.18
13623	CH2	TRP	C	190	-56.215	17.763	8.628	1.00	54.05
13624	CZ2	TRP	C	190	-56.627	17.067	9.729	1.00	53.74
13625	C	TRP	C	190	-53.514	11.461	6.835	1.00	55.15
13626	O	TRP	C	190	-53.066	10.405	7.266	1.00	55.18
13627	N	SER	C	191	-52.961	12.113	5.819	1.00	55.91
13628	CA	SER	C	191	-51.713	11.653	5.221	1.00	56.59
13629	CB	SER	C	191	-51.420	12.415	3.926	1.00	56.56
13630	OG	SER	C	191	-51.541	13.816	4.111	1.00	56.03
13631	C	SER	C	191	-50.593	11.893	6.234	1.00	57.42
13632	O	SER	C	191	-50.714	12.750	7.118	1.00	56.98
13633	N	PRO	C	192	-49.512	11.133	6.110	1.00	58.15
13634	CA	PRO	C	192	-48.376	11.246	7.026	1.00	59.14
13635	CB	PRO	C	192	-47.262	10.537	6.268	1.00	59.27
13636	CG	PRO	C	192	-47.978	9.502	5.455	1.00	58.36
13637	CD	PRO	C	192	-49.300	10.101	5.082	1.00	58.19
13638	C	PRO	C	192	-48.002	12.701	7.273	1.00	60.19
13639	O	PRO	C	192	-47.788	13.104	8.415	1.00	60.18
13640	N	ASN	C	193	-47.952	13.480	6.198	1.00	61.32
13641	CA	ASN	C	193	-47.593	14.889	6.272	1.00	62.17
13642	CB	ASN	C	193	-47.418	15.438	4.862	1.00	62.99
13643	CG	ASN	C	193	-46.484	16.616	4.810	1.00	65.90
13644	OD1	ASN	C	193	-46.803	17.693	5.313	1.00	68.50
13645	ND2	ASN	C	193	-45.318	16.425	4.192	1.00	72.02
13646	C	ASN	C	193	-48.633	15.733	6.972	1.00	61.82
13647	O	ASN	C	193	-48.300	16.679	7.675	1.00	61.97
13648	N	GLY	C	194	-49.901	15.407	6.751	1.00	61.60
13649	CA	GLY	C	194	-50.994	16.172	7.315	1.00	60.80
13650	C	GLY	C	194	-51.556	17.052	6.222	1.00	60.44
13651	O	GLY	C	194	-52.471	17.853	6.434	1.00	60.77
13652	N	THR	C	195	-50.996	16.899	5.032	1.00	59.75
13653	CA	THR	C	195	-51.421	17.694	3.897	1.00	58.98
13654	CB	THR	C	195	-50.386	17.572	2.761	1.00	59.11
13655	OG1	THR	C	195	-49.064	17.669	3.310	1.00	59.07
13656	CG2	THR	C	195	-50.474	18.769	1.825	1.00	59.07
13657	C	THR	C	195	-52.790	17.214	3.434	1.00	58.49
13658	O	THR	C	195	-53.727	18.007	3.310	1.00	58.20

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**FIGURE 3 JH**

A	B	C	D	E	F	G	H	I	J
13659	N	PHE	C	196	-52.900	15.907	3.201	1.00	57.69
13660	CA	PHE	C	196	-54.143	15.308	2.719	1.00	57.12
13661	CB	PHE	C	196	-53.843	14.217	1.691	1.00	57.33
13662	CG	PHE	C	196	-53.296	14.739	0.402	1.00	58.36
13663	CD1	PHE	C	196	-54.017	15.660	-0.347	1.00	59.58
13664	CE1	PHE	C	196	-53.517	16.147	-1.542	1.00	59.97
13665	CZ	PHE	C	196	-52.281	15.722	-1.991	1.00	59.29
13666	CE2	PHE	C	196	-51.550	14.813	-1.249	1.00	58.84
13667	CD2	PHE	C	196	-52.059	14.322	-0.061	1.00	58.77
13668	C	PHE	C	196	-55.040	14.725	3.813	1.00	56.35
13669	O	PHE	C	196	-54.570	14.126	4.787	1.00	56.19
13670	N	LEU	C	197	-56.340	14.908	3.633	1.00	55.17
13671	CA	LEU	C	197	-57.329	14.338	4.528	1.00	54.16
13672	CB	LEU	C	197	-58.172	15.424	5.178	1.00	54.23
13673	CG	LEU	C	197	-59.355	14.877	5.971	1.00	54.29
13674	CD1	LEU	C	197	-60.191	16.016	6.550	1.00	54.27
13675	CD2	LEU	C	197	-58.862	13.939	7.058	1.00	53.50
13676	C	LEU	C	197	-58.229	13.417	3.729	1.00	53.33
13677	O	LEU	C	197	-58.955	13.865	2.844	1.00	52.98
13678	N	ALA	C	198	-58.169	12.131	4.044	1.00	52.27
13679	CA	ALA	C	198	-58.999	11.133	3.385	1.00	51.25
13680	CB	ALA	C	198	-58.167	9.921	3.006	1.00	51.09
13681	C	ALA	C	198	-60.143	10.707	4.296	1.00	50.59
13682	O	ALA	C	198	-59.993	10.636	5.513	1.00	50.77
13683	N	TYR	C	199	-61.287	10.408	3.697	1.00	49.68
13684	CA	TYR	C	199	-62.434	9.951	4.450	1.00	48.67
13685	CB	TYR	C	199	-63.223	11.136	4.986	1.00	48.41
13686	CG	TYR	C	199	-63.804	12.031	3.915	1.00	48.64
13687	CD1	TYR	C	199	-65.078	11.804	3.410	1.00	48.03
13688	CE1	TYR	C	199	-65.617	12.625	2.436	1.00	48.60
13689	CZ	TYR	C	199	-64.884	13.692	1.957	1.00	48.61
13690	OH	TYR	C	199	-65.418	14.514	0.990	1.00	49.11
13691	CE2	TYR	C	199	-63.618	13.948	2.445	1.00	47.99
13692	CD2	TYR	C	199	-63.083	13.117	3.414	1.00	48.38
13693	C	TYR	C	199	-63.347	9.104	3.586	1.00	48.19
13694	O	TYR	C	199	-63.399	9.266	2.366	1.00	47.72
13695	N	ALA	C	200	-64.072	8.200	4.233	1.00	47.53
13696	CA	ALA	C	200	-65.050	7.391	3.528	1.00	46.94
13697	CB	ALA	C	200	-65.052	5.972	4.064	1.00	46.49
13698	C	ALA	C	200	-66.412	8.041	3.713	1.00	46.41
13699	O	ALA	C	200	-66.598	8.876	4.594	1.00	46.78
13700	N	GLN	C	201	-67.356	7.685	2.862	1.00	45.99
13701	CA	GLN	C	201	-68.716	8.167	3.005	1.00	45.83
13702	CB	GLN	C	201	-69.100	9.126	1.879	1.00	46.18
13703	CG	GLN	C	201	-70.533	9.627	1.991	1.00	47.72
13704	CD	GLN	C	201	-70.782	10.903	1.214	1.00	49.96
13705	OE1	GLN	C	201	-71.164	10.859	0.048	1.00	50.58
13706	NE2	GLN	C	201	-70.579	12.042	1.861	1.00	51.42
13707	C	GLN	C	201	-69.640	6.958	3.015	1.00	45.21
13708	O	GLN	C	201	-69.473	6.025	2.220	1.00	45.15
13709	N	PHE	C	202	-70.595	6.946	3.936	1.00	44.23

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**FIGURE 3 JI**

A	B	C	D	E	F	G	H	I	J
13710	CA	PHE	C	202	-71.488	5.800	4.021	1.00	43.33
13711	CB	PHE	C	202	-71.336	5.064	5.352	1.00	42.94
13712	CG	PHE	C	202	-69.931	4.660	5.658	1.00	41.85
13713	CD1	PHE	C	202	-69.400	3.496	5.127	1.00	40.26
13714	CE1	PHE	C	202	-68.094	3.117	5.404	1.00	38.51
13715	CZ	PHE	C	202	-67.306	3.906	6.219	1.00	39.69
13716	CE2	PHE	C	202	-67.823	5.076	6.756	1.00	40.28
13717	CD2	PHE	C	202	-69.132	5.446	6.480	1.00	40.55
13718	C	PHE	C	202	-72.915	6.226	3.807	1.00	43.20
13719	O	PHE	C	202	-73.340	7.277	4.287	1.00	43.16
13720	N	ASN	C	203	-73.650	5.406	3.072	1.00	42.90
13721	CA	ASN	C	203	-75.030	5.709	2.782	1.00	43.29
13722	CB	ASN	C	203	-75.214	5.928	1.292	1.00	43.65
13723	CG	ASN	C	203	-76.412	6.778	0.984	1.00	44.58
13724	OD1	ASN	C	203	-77.425	6.734	1.686	1.00	43.23
13725	ND2	ASN	C	203	-76.298	7.588	-0.059	1.00	47.95
13726	C	ASN	C	203	-75.914	4.578	3.224	1.00	43.26
13727	O	ASN	C	203	-75.774	3.463	2.743	1.00	43.22
13728	N	ASP	C	204	-76.847	4.876	4.119	1.00	43.47
13729	CA	ASP	C	204	-77.716	3.852	4.694	1.00	43.66
13730	CB	ASP	C	204	-77.613	3.891	6.216	1.00	43.84
13731	CG	ASP	C	204	-76.289	3.374	6.707	1.00	44.94
13732	OD1	ASP	C	204	-75.256	3.827	6.172	1.00	45.47
13733	OD2	ASP	C	204	-76.182	2.503	7.598	1.00	46.16
13734	C	ASP	C	204	-79.164	4.018	4.301	1.00	43.16
13735	O	ASP	C	204	-80.031	3.315	4.814	1.00	43.63
13736	N	THR	C	205	-79.415	4.947	3.391	1.00	42.34
13737	CA	THR	C	205	-80.767	5.257	2.933	1.00	42.11
13738	CB	THR	C	205	-80.713	5.917	1.544	1.00	42.01
13739	OG1	THR	C	205	-80.207	7.253	1.668	1.00	42.98
13740	OG2	THR	C	205	-82.117	6.131	1.002	1.00	41.81
13741	C	THR	C	205	-81.734	4.072	2.887	1.00	41.53
13742	O	THR	C	205	-82.896	4.187	3.303	1.00	41.51
13743	N	GLU	C	206	-81.260	2.939	2.388	1.00	40.50
13744	CA	GLU	C	206	-82.146	1.797	2.234	1.00	40.04
13745	CB	GLU	C	206	-82.134	1.324	0.774	1.00	40.07
13746	CG	GLU	C	206	-82.438	2.480	-0.172	1.00	41.65
13747	CD	GLU	C	206	-82.268	2.161	-1.646	1.00	44.80
13748	OE1	GLU	C	206	-83.236	2.363	-2.414	1.00	46.76
13749	OE2	GLU	C	206	-81.166	1.743	-2.054	1.00	46.59
13750	C	GLU	C	206	-81.891	0.645	3.224	1.00	38.87
13751	O	GLU	C	206	-82.511	-0.420	3.133	1.00	37.95
13752	N	VAL	C	207	-80.976	0.863	4.165	1.00	37.68
13753	CA	VAL	C	207	-80.731	-0.138	5.205	1.00	36.62
13754	CB	VAL	C	207	-79.429	0.141	5.967	1.00	36.79
13755	CG1	VAL	C	207	-79.170	-0.944	7.031	1.00	36.88
13756	CG2	VAL	C	207	-78.272	0.251	5.003	1.00	36.84
13757	C	VAL	C	207	-81.882	-0.074	6.193	1.00	35.27
13758	O	VAL	C	207	-82.170	0.986	6.724	1.00	35.26
13759	N	PRO	C	208	-82.565	-1.193	6.406	1.00	34.54
13760	CA	PRO	C	208	-83.661	-1.253	7.386	1.00	34.29

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**FIGURE 3 JJ**

A	B	C	D	E	F	G	H	I	J
13761	CB	PRO	C	208	-84.179	-2.684	7.259	1.00	34.13
13762	CG	PRO	C	208	-83.709	-3.132	5.895	1.00	34.34
13763	CD	PRO	C	208	-82.366	-2.475	5.708	1.00	33.97
13764	C	PRO	C	208	-83.203	-0.978	8.813	1.00	33.90
13765	O	PRO	C	208	-82.027	-1.118	9.157	1.00	34.41
13766	N	LEU	C	209	-84.145	-0.574	9.648	1.00	33.81
13767	CA	LEU	C	209	-83.820	-0.198	11.005	1.00	33.49
13768	CB	LEU	C	209	-84.518	1.112	11.347	1.00	33.96
13769	CG	LEU	C	209	-84.559	2.182	10.248	1.00	35.02
13770	CD1	LEU	C	209	-83.316	3.015	10.268	1.00	34.09
13771	CD2	LEU	C	209	-85.796	3.058	10.413	1.00	36.67
13772	C	LEU	C	209	-84.240	-1.254	11.999	1.00	33.03
13773	O	LEU	C	209	-85.336	-1.812	11.901	1.00	33.09
13774	N	ILE	C	210	-83.355	-1.569	12.939	1.00	32.05
13775	CA	ILE	C	210	-83.777	-2.428	14.038	1.00	31.09
13776	CB	ILE	C	210	-82.587	-3.139	14.735	1.00	30.96
13777	CG1	ILE	C	210	-83.083	-3.992	15.904	1.00	29.69
13778	CD1	ILE	C	210	-84.158	-4.994	15.566	1.00	28.62
13779	CG2	ILE	C	210	-81.570	-2.128	15.243	1.00	30.43
13780	C	ILE	C	210	-84.488	-1.464	14.968	1.00	29.87
13781	O	ILE	C	210	-84.049	-0.341	15.128	1.00	29.51
13782	N	GLU	C	211	-85.609	-1.884	15.531	1.00	29.61
13783	CA	GLU	C	211	-86.387	-1.015	16.414	1.00	29.40
13784	CB	GLU	C	211	-87.755	-0.709	15.798	1.00	29.74
13785	CG	GLU	C	211	-87.698	-0.227	14.343	1.00	31.91
13786	CD	GLU	C	211	-88.879	0.642	13.947	1.00	34.50
13787	OE1	GLU	C	211	-88.669	1.699	13.324	1.00	36.73
13788	OE2	GLU	C	211	-90.026	0.266	14.234	1.00	36.55
13789	C	GLU	C	211	-86.568	-1.727	17.740	1.00	29.26
13790	O	GLU	C	211	-86.836	-2.916	17.762	1.00	29.47
13791	N	TYR	C	212	-86.373	-1.014	18.847	1.00	28.74
13792	CA	TYR	C	212	-86.548	-1.604	20.163	1.00	27.93
13793	CB	TYR	C	212	-85.322	-2.427	20.596	1.00	27.74
13794	CG	TYR	C	212	-83.982	-1.700	20.561	1.00	28.43
13795	CD1	TYR	C	212	-83.541	-0.972	21.648	1.00	29.03
13796	CE1	TYR	C	212	-82.337	-0.318	21.633	1.00	28.97
13797	CZ	TYR	C	212	-81.525	-0.380	20.528	1.00	28.02
13798	OH	TYR	C	212	-80.316	0.283	20.565	1.00	26.76
13799	CE2	TYR	C	212	-81.912	-1.109	19.430	1.00	26.95
13800	CD2	TYR	C	212	-83.148	-1.769	19.449	1.00	28.64
13801	C	TYR	C	212	-86.877	-0.530	21.185	1.00	27.25
13802	O	TYR	C	212	-86.524	0.623	21.013	1.00	27.62
13803	N	SER	C	213	-87.586	-0.906	22.239	1.00	26.40
13804	CA	SER	C	213	-87.924	0.050	23.255	1.00	25.34
13805	CB	SER	C	213	-88.994	-0.495	24.182	1.00	25.35
13806	OG	SER	C	213	-90.180	-0.736	23.464	1.00	25.27
13807	C	SER	C	213	-86.726	0.418	24.075	1.00	24.88
13808	O	SER	C	213	-85.792	-0.381	24.268	1.00	25.16
13809	N	PHE	C	214	-86.731	1.660	24.528	1.00	23.79
13810	CA	PHE	C	214	-85.758	2.089	25.489	1.00	23.02
13811	CB	PHE	C	214	-84.758	3.070	24.904	1.00	21.59

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**FIGURE 3 JK**

A	B	C	D	E	F	G	H	I	J
13812	CG	PHE	C	214	-83.581	3.303	25.797	1.00	22.14
13813	CD1	PHE	C	214	-83.545	4.395	26.643	1.00	20.47
13814	CE1	PHE	C	214	-82.474	4.602	27.495	1.00	21.26
13815	CZ	PHE	C	214	-81.416	3.713	27.509	1.00	21.13
13816	CE2	PHE	C	214	-81.451	2.599	26.684	1.00	22.44
13817	CD2	PHE	C	214	-82.527	2.393	25.835	1.00	21.49
13818	C	PHE	C	214	-86.610	2.728	26.563	1.00	23.30
13819	O	PHE	C	214	-87.362	3.663	26.302	1.00	23.83
13820	N	TYR	C	215	-86.491	2.237	27.780	1.00	23.67
13821	CA	TYR	C	215	-87.366	2.694	28.839	1.00	23.72
13822	CB	TYR	C	215	-87.613	1.520	29.770	1.00	23.53
13823	CG	TYR	C	215	-88.190	0.383	28.997	1.00	22.91
13824	CD1	TYR	C	215	-87.384	-0.632	28.505	1.00	21.36
13825	CE1	TYR	C	215	-87.929	-1.668	27.768	1.00	21.11
13826	CZ	TYR	C	215	-89.287	-1.690	27.518	1.00	22.99
13827	OH	TYR	C	215	-89.842	-2.706	26.779	1.00	26.40
13828	CE2	TYR	C	215	-90.099	-0.697	27.972	1.00	21.80
13829	CD2	TYR	C	215	-89.553	0.346	28.703	1.00	23.70
13830	C	TYR	C	215	-86.891	3.927	29.591	1.00	24.24
13831	O	TYR	C	215	-87.703	4.683	30.109	1.00	24.59
13832	N	SER	C	216	-85.586	4.126	29.640	1.00	25.17
13833	CA	SER	C	216	-84.986	5.301	30.267	1.00	26.77
13834	CB	SER	C	216	-85.482	6.590	29.593	1.00	26.93
13835	OG	SER	C	216	-84.636	7.712	29.858	1.00	25.11
13836	C	SER	C	216	-85.253	5.358	31.761	1.00	28.05
13837	O	SER	C	216	-85.719	4.371	32.378	1.00	28.16
13838	N	ASP	C	217	-84.952	6.513	32.338	1.00	28.88
13839	CA	ASP	C	217	-85.229	6.764	33.741	1.00	30.64
13840	CB	ASP	C	217	-84.914	8.209	34.133	1.00	31.51
13841	CG	ASP	C	217	-83.512	8.379	34.648	1.00	37.46
13842	OD1	ASP	C	217	-83.233	7.952	35.810	1.00	41.26
13843	OD2	ASP	C	217	-82.618	8.931	33.953	1.00	43.60
13844	C	ASP	C	217	-86.694	6.534	33.993	1.00	30.10
13845	O	ASP	C	217	-87.520	6.621	33.088	1.00	30.15
13846	N	GLU	C	218	-87.006	6.265	35.246	1.00	29.91
13847	CA	GLU	C	218	-88.366	6.038	35.687	1.00	30.08
13848	CB	GLU	C	218	-88.318	5.820	37.198	1.00	30.34
13849	CG	GLU	C	218	-89.642	5.457	37.808	1.00	30.57
13850	CD	GLU	C	218	-89.569	5.448	39.314	1.00	31.50
13851	OE1	GLU	C	218	-90.653	5.454	39.929	1.00	30.19
13852	OE2	GLU	C	218	-88.440	5.447	39.862	1.00	29.16
13853	C	GLU	C	218	-89.301	7.221	35.337	1.00	30.15
13854	O	GLU	C	218	-90.509	7.036	35.126	1.00	30.19
13855	N	SER	C	219	-88.742	8.425	35.272	1.00	29.61
13856	CA	SER	C	219	-89.499	9.629	34.911	1.00	30.11
13857	CB	SER	C	219	-88.603	10.862	34.990	1.00	29.74
13858	OG	SER	C	219	-88.685	11.435	36.276	1.00	34.17
13859	C	SER	C	219	-90.098	9.629	33.513	1.00	29.25
13860	O	SER	C	219	-91.072	10.316	33.273	1.00	29.39
13861	N	LEU	C	220	-89.477	8.929	32.576	1.00	28.72
13862	CA	LEU	C	220	-89.981	8.925	31.203	1.00	28.94

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**FIGURE 3 JL**

A	B	C	D	E	F	G	H	I	J
13863	CB	LEU	C	220	-88.996	8.217	30.286	1.00	28.81
13864	CG	LEU	C	220	-88.787	8.724	28.853	1.00	30.91
13865	CD1	LEU	C	220	-88.739	7.557	27.884	1.00	28.91
13866	CD2	LEU	C	220	-89.816	9.778	28.417	1.00	30.79
13867	C	LEU	C	220	-91.297	8.168	31.180	1.00	28.69
13868	O	LEU	C	220	-91.309	6.955	31.379	1.00	28.71
13869	N	GLN	C	221	-92.402	8.860	30.924	1.00	28.48
13870	CA	GLN	C	221	-93.676	8.187	31.000	1.00	28.74
13871	CB	GLN	C	221	-94.816	9.140	31.424	1.00	29.01
13872	CG	GLN	C	221	-95.741	9.573	30.392	1.00	30.12
13873	CD	GLN	C	221	-96.905	10.394	30.935	1.00	31.70
13874	OE1	GLN	C	221	-97.183	11.478	30.426	1.00	33.47
13875	NE2	GLN	C	221	-97.612	9.863	31.926	1.00	29.51
13876	C	GLN	C	221	-93.999	7.275	29.823	1.00	28.55
13877	O	GLN	C	221	-94.591	6.220	30.015	1.00	28.97
13878	N	TYR	C	222	-93.611	7.666	28.613	1.00	28.68
13879	CA	TYR	C	222	-93.738	6.792	27.448	1.00	27.87
13880	CB	TYR	C	222	-94.384	7.540	26.292	1.00	27.58
13881	CG	TYR	C	222	-95.873	7.788	26.422	1.00	25.09
13882	CD1	TYR	C	222	-96.792	6.896	25.875	1.00	23.08
13883	CE1	TYR	C	222	-98.141	7.116	25.976	1.00	22.99
13884	CZ	TYR	C	222	-98.605	8.235	26.636	1.00	23.45
13885	OH	TYR	C	222	-99.971	8.460	26.706	1.00	22.97
13886	CE2	TYR	C	222	-97.706	9.128	27.187	1.00	23.41
13887	CD2	TYR	C	222	-96.351	8.897	27.077	1.00	20.70
13888	C	TYR	C	222	-92.332	6.389	27.028	1.00	28.24
13889	O	TYR	C	222	-91.489	7.247	26.827	1.00	28.57
13890	N	PRO	C	223	-92.071	5.099	26.884	1.00	28.60
13891	CA	PRO	C	223	-90.749	4.635	26.448	1.00	29.15
13892	CB	PRO	C	223	-90.902	3.112	26.380	1.00	28.83
13893	CG	PRO	C	223	-92.158	2.790	27.107	1.00	29.05
13894	CD	PRO	C	223	-93.020	3.994	27.098	1.00	28.79
13895	C	PRO	C	223	-90.428	5.145	25.037	1.00	29.93
13896	O	PRO	C	223	-91.359	5.358	24.232	1.00	29.83
13897	N	LYS	C	224	-89.140	5.316	24.751	1.00	30.03
13898	CA	LYS	C	224	-88.680	5.720	23.435	1.00	31.06
13899	CB	LYS	C	224	-87.387	6.546	23.532	1.00	31.64
13900	CG	LYS	C	224	-86.592	6.552	22.204	1.00	35.58
13901	CD	LYS	C	224	-85.428	7.565	22.147	1.00	40.48
13902	CE	LYS	C	224	-84.847	7.650	20.713	1.00	44.08
13903	NZ	LYS	C	224	-83.356	7.924	20.640	1.00	45.90
13904	C	LYS	C	224	-88.419	4.502	22.549	1.00	31.01
13905	O	LYS	C	224	-88.009	3.440	23.032	1.00	30.81
13906	N	THR	C	225	-88.669	4.651	21.253	1.00	30.57
13907	CA	THR	C	225	-88.321	3.610	20.319	1.00	30.52
13908	CB	THR	C	225	-89.414	3.434	19.277	1.00	30.58
13909	OG1	THR	C	225	-90.594	2.957	19.913	1.00	30.75
13910	CG2	THR	C	225	-89.071	2.285	18.342	1.00	31.23
13911	C	THR	C	225	-86.999	3.984	19.646	1.00	30.64
13912	O	THR	C	225	-86.906	4.988	18.937	1.00	29.95
13913	N	VAL	C	226	-85.975	3.176	19.881	1.00	30.60

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**FIGURE 3 JM**

A	B	C	D	E	F	G	H	I	J
13914	CA	VAL	C	226	-84.683	3.400	19.251	1.00	30.79
13915	CB	VAL	C	226	-83.556	2.748	20.065	1.00	30.79
13916	CG1	VAL	C	226	-82.233	2.876	19.354	1.00	30.14
13917	CG2	VAL	C	226	-83.464	3.369	21.450	1.00	30.56
13918	C	VAL	C	226	-84.697	2.817	17.835	1.00	31.13
13919	O	VAL	C	226	-85.176	1.709	17.616	1.00	30.73
13920	N	ARG	C	227	-84.177	3.572	16.872	1.00	31.64
13921	CA	ARG	C	227	-84.173	3.127	15.484	1.00	32.37
13922	CB	ARG	C	227	-85.163	3.952	14.663	1.00	32.33
13923	CG	ARG	C	227	-86.637	3.727	15.061	1.00	33.95
13924	CD	ARG	C	227	-87.646	4.587	14.293	1.00	36.77
13925	NE	ARG	C	227	-89.029	4.442	14.763	1.00	40.59
13926	CZ	ARG	C	227	-89.528	5.000	15.878	1.00	43.38
13927	NH1	ARG	C	227	-88.759	5.732	16.683	1.00	43.86
13928	NH2	ARG	C	227	-90.804	4.817	16.199	1.00	43.10
13929	C	ARG	C	227	-82.775	3.204	14.882	1.00	32.34
13930	O	ARG	C	227	-82.188	4.279	14.761	1.00	32.84
13931	N	VAL	C	228	-82.210	2.070	14.512	1.00	31.89
13932	CA	VAL	C	228	-80.858	2.152	13.996	1.00	31.57
13933	CB	VAL	C	228	-79.787	1.736	15.034	1.00	31.19
13934	CG1	VAL	C	228	-79.014	0.559	14.566	1.00	31.60
13935	CG2	VAL	C	228	-80.394	1.556	16.441	1.00	31.18
13936	C	VAL	C	228	-80.703	1.364	12.723	1.00	31.43
13937	O	VAL	C	228	-81.181	0.230	12.630	1.00	31.40
13938	N	PRO	C	229	-80.090	2.004	11.731	1.00	31.15
13939	CA	PRO	C	229	-79.833	1.383	10.439	1.00	31.51
13940	CB	PRO	C	229	-79.116	2.490	9.645	1.00	31.83
13941	CG	PRO	C	229	-79.540	3.747	10.291	1.00	31.61
13942	CD	PRO	C	229	-79.613	3.395	11.775	1.00	31.91
13943	C	PRO	C	229	-78.895	0.253	10.723	1.00	31.66
13944	O	PRO	C	229	-77.752	0.492	11.119	1.00	31.94
13945	N	TYR	C	230	-79.391	-0.960	10.518	1.00	31.57
13946	CA	TYR	C	230	-78.683	-2.164	10.856	1.00	31.68
13947	CB	TYR	C	230	-79.085	-2.562	12.286	1.00	31.52
13948	CG	TYR	C	230	-78.506	-3.857	12.828	1.00	30.56
13949	CD1	TYR	C	230	-77.802	-3.864	14.020	1.00	30.11
13950	CE1	TYR	C	230	-77.294	-5.046	14.548	1.00	30.51
13951	CZ	TYR	C	230	-77.497	-6.236	13.890	1.00	28.91
13952	OH	TYR	C	230	-76.971	-7.391	14.434	1.00	27.93
13953	CE2	TYR	C	230	-78.200	-6.262	12.697	1.00	28.65
13954	CD2	TYR	C	230	-78.698	-5.075	12.175	1.00	29.51
13955	C	TYR	C	230	-79.125	-3.224	9.879	1.00	31.77
13956	O	TYR	C	230	-80.296	-3.560	9.827	1.00	32.09
13957	N	PRO	C	231	-78.192	-3.727	9.086	1.00	32.17
13958	CA	PRO	C	231	-78.488	-4.767	8.097	1.00	32.64
13959	CB	PRO	C	231	-77.405	-4.565	7.030	1.00	32.47
13960	CG	PRO	C	231	-76.395	-3.609	7.636	1.00	32.79
13961	CD	PRO	C	231	-76.791	-3.289	9.043	1.00	32.22
13962	C	PRO	C	231	-78.354	-6.169	8.654	1.00	32.90
13963	O	PRO	C	231	-77.261	-6.626	8.996	1.00	32.61
13964	N	LYS	C	232	-79.469	-6.863	8.731	1.00	33.36

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**FIGURE 3 JN**

A	B	C	D	E	F	G	H	I	J
13965	CA	LYS	C	232	-79.428	-8.228	9.165	1.00	34.36
13966	CB	LYS	C	232	-80.804	-8.664	9.664	1.00	34.43
13967	CG	LYS	C	232	-81.156	-8.056	11.023	1.00	34.61
13968	CD	LYS	C	232	-82.582	-8.402	11.485	1.00	34.22
13969	CE	LYS	C	232	-82.988	-7.773	12.872	1.00	34.56
13970	NZ	LYS	C	232	-82.178	-8.420	14.033	1.00	30.83
13971	C	LYS	C	232	-78.971	-9.004	7.949	1.00	35.12
13972	O	LYS	C	232	-78.910	-8.453	6.855	1.00	35.75
13973	N	ALA	C	233	-78.636	-10.274	8.117	1.00	35.80
13974	CA	ALA	C	233	-78.116	-11.039	6.989	1.00	36.32
13975	CB	ALA	C	233	-77.928	-12.488	7.368	1.00	35.65
13976	C	ALA	C	233	-79.052	-10.917	5.790	1.00	36.79
13977	O	ALA	C	233	-80.263	-10.969	5.948	1.00	37.65
13978	N	GLY	C	234	-78.481	-10.736	4.603	1.00	37.33
13979	CA	GLY	C	234	-79.248	-10.663	3.365	1.00	37.38
13980	C	GLY	C	234	-79.966	-9.377	3.008	1.00	37.11
13981	O	GLY	C	234	-80.513	-9.255	1.913	1.00	37.80
13982	N	ALA	C	235	-79.965	-8.407	3.910	1.00	37.21
13983	CA	ALA	C	235	-80.694	-7.159	3.683	1.00	36.87
13984	CB	ALA	C	235	-81.111	-6.552	5.020	1.00	36.57
13985	C	ALA	C	235	-79.842	-6.174	2.897	1.00	36.89
13986	O	ALA	C	235	-78.673	-6.440	2.628	1.00	37.64
13987	N	VAL	C	236	-80.388	-5.019	2.542	1.00	36.71
13988	CA	VAL	C	236	-79.549	-4.094	1.819	1.00	36.90
13989	CB	VAL	C	236	-80.339	-2.952	1.117	1.00	36.83
13990	CG1	VAL	C	236	-80.547	-1.787	2.050	1.00	37.74
13991	CG2	VAL	C	236	-81.660	-3.457	0.544	1.00	35.33
13992	C	VAL	C	236	-78.526	-3.486	2.779	1.00	37.52
13993	O	VAL	C	236	-78.868	-3.043	3.893	1.00	37.13
13994	N	ASN	C	237	-77.275	-3.480	2.335	1.00	37.50
13995	CA	ASN	C	237	-76.168	-2.904	3.077	1.00	38.17
13996	CB	ASN	C	237	-74.876	-3.663	2.750	1.00	38.39
13997	CG	ASN	C	237	-74.640	-4.852	3.651	1.00	38.73
13998	OD1	ASN	C	237	-73.833	-5.720	3.341	1.00	38.98
13999	ND2	ASN	C	237	-75.327	-4.886	4.779	1.00	38.15
14000	C	ASN	C	237	-75.965	-1.469	2.644	1.00	38.26
14001	O	ASN	C	237	-76.470	-1.049	1.603	1.00	38.10
14002	N	PRO	C	238	-75.232	-0.714	3.448	1.00	38.87
14003	CA	PRO	C	238	-74.833	0.638	3.059	1.00	39.39
14004	CB	PRO	C	238	-74.032	1.132	4.279	1.00	39.41
14005	CG	PRO	C	238	-73.607	-0.122	4.988	1.00	38.23
14006	CD	PRO	C	238	-74.774	-1.050	4.812	1.00	39.00
14007	C	PRO	C	238	-73.929	0.572	1.830	1.00	40.28
14008	O	PRO	C	238	-73.554	-0.542	1.383	1.00	40.34
14009	N	THR	C	239	-73.610	1.754	1.294	1.00	40.95
14010	CA	THR	C	239	-72.726	1.884	0.145	1.00	41.78
14011	CB	THR	C	239	-73.497	2.412	-1.092	1.00	42.17
14012	CG1	THR	C	239	-74.131	3.663	-0.773	1.00	41.20
14013	CG2	THR	C	239	-74.644	1.482	-1.470	1.00	40.36
14014	C	THR	C	239	-71.600	2.850	0.512	1.00	43.18
14015	O	THR	C	239	-71.805	3.775	1.302	1.00	42.77



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FIGURE 3 JO

A	B	C	D	E	F	G	H	I	J
14016	N	VAL	C	240	-70.418	2.653	-0.065	1.00	44.55
14017	CA	VAL	C	240	-69.279	3.499	0.287	1.00	45.93
14018	CB	VAL	C	240	-68.159	2.683	0.955	1.00	45.40
14019	CG1	VAL	C	240	-68.513	2.392	2.389	1.00	46.36
14020	CG2	VAL	C	240	-67.896	1.400	0.183	1.00	45.22
14021	C	VAL	C	240	-68.667	4.274	-0.863	1.00	46.82
14022	O	VAL	C	240	-68.697	3.838	-2.008	1.00	46.51
14023	N	LYS	C	241	-68.094	5.420	-0.518	1.00	48.42
14024	CA	LYS	C	241	-67.441	6.308	-1.460	1.00	50.07
14025	CB	LYS	C	241	-68.340	7.511	-1.757	1.00	49.74
14026	CG	LYS	C	241	-69.445	7.279	-2.786	1.00	50.25
14027	CD	LYS	C	241	-70.292	8.538	-2.923	1.00	49.63
14028	CE	LYS	C	241	-71.065	8.574	-4.227	1.00	50.24
14029	NZ	LYS	C	241	-71.910	7.371	-4.440	1.00	49.74
14030	C	LYS	C	241	-66.171	6.823	-0.802	1.00	51.37
14031	O	LYS	C	241	-66.224	7.370	0.305	1.00	51.62
14032	N	PHE	C	242	-65.027	6.641	-1.453	1.00	52.68
14033	CA	PHE	C	242	-63.797	7.171	-0.883	1.00	54.02
14034	CB	PHE	C	242	-62.614	6.199	-0.980	1.00	54.09
14035	CG	PHE	C	242	-61.393	6.690	-0.249	1.00	55.54
14036	CD1	PHE	C	242	-60.987	6.107	0.940	1.00	56.76
14037	CE1	PHE	C	242	-59.880	6.599	1.617	1.00	57.97
14038	CZ	PHE	C	242	-59.178	7.689	1.110	1.00	57.90
14039	CE2	PHE	C	242	-59.583	8.278	-0.061	1.00	56.86
14040	CD2	PHE	C	242	-60.683	7.783	-0.730	1.00	56.12
14041	C	PHE	C	242	-63.451	8.512	-1.516	1.00	54.71
14042	O	PHE	C	242	-63.628	8.708	-2.712	1.00	54.36
14043	N	PHE	C	243	-62.975	9.430	-0.682	1.00	55.72
14044	CA	PHE	C	243	-62.602	10.763	-1.111	1.00	56.89
14045	CB	PHE	C	243	-63.699	11.777	-0.755	1.00	56.82
14046	CG	PHE	C	243	-64.992	11.565	-1.486	1.00	57.69
14047	CD1	PHE	C	243	-66.010	10.808	-0.921	1.00	57.77
14048	CE1	PHE	C	243	-67.209	10.621	-1.590	1.00	57.00
14049	CZ	PHE	C	243	-67.400	11.193	-2.824	1.00	57.21
14050	CE2	PHE	C	243	-66.395	11.956	-3.399	1.00	57.20
14051	CD2	PHE	C	243	-65.204	12.142	-2.732	1.00	57.47
14052	C	PHE	C	243	-61.334	11.194	-0.396	1.00	57.53
14053	O	PHE	C	243	-60.980	10.652	0.651	1.00	57.70
14054	N	VAL	C	244	-60.653	12.176	-0.966	1.00	58.09
14055	CA	VAL	C	244	-59.506	12.770	-0.313	1.00	58.87
14056	CB	VAL	C	244	-58.169	12.138	-0.731	1.00	58.76
14057	CG1	VAL	C	244	-58.293	11.448	-2.070	1.00	58.84
14058	CG2	VAL	C	244	-57.057	13.186	-0.731	1.00	58.56
14059	C	VAL	C	244	-59.519	14.245	-0.613	1.00	59.44
14060	O	VAL	C	244	-59.866	14.668	-1.715	1.00	59.55
14061	N	VAL	C	245	-59.170	15.028	0.391	1.00	60.36
14062	CA	VAL	C	245	-59.155	16.459	0.235	1.00	61.31
14063	CB	VAL	C	245	-60.258	17.107	1.093	1.00	61.05
14064	CG1	VAL	C	245	-59.992	16.895	2.571	1.00	61.29
14065	CG2	VAL	C	245	-60.390	18.584	0.770	1.00	61.48
14066	C	VAL	C	245	-57.769	17.010	0.571	1.00	61.85

**REPLACEMENT SHEET**  
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**FIGURE 3 JP**

A	B	C	D	E	F	G	H	I	J
14067	O	VAL	C	245	-57.064	16.477	1.430	1.00	61.82
14068	N	ASN	C	246	-57.384	18.064	-0.143	1.00	62.81
14069	CA	ASN	C	246	-56.110	18.750	0.056	1.00	63.66
14070	CB	ASN	C	246	-55.588	19.263	-1.289	1.00	63.75
14071	CG	ASN	C	246	-54.250	19.973	-1.174	1.00	64.57
14072	OD1	ASN	C	246	-53.191	19.372	-1.384	1.00	65.06
14073	ND2	ASN	C	246	-54.289	21.265	-0.859	1.00	64.15
14074	C	ASN	C	246	-56.328	19.899	1.030	1.00	64.22
14075	O	ASN	C	246	-57.011	20.865	0.705	1.00	64.23
14076	N	THR	C	247	-55.750	19.798	2.224	1.00	65.16
14077	CA	THR	C	247	-56.007	20.795	3.263	1.00	66.53
14078	CB	THR	C	247	-55.968	20.165	4.679	1.00	66.37
14079	OG1	THR	C	247	-54.741	19.447	4.864	1.00	66.45
14080	CG2	THR	C	247	-57.047	19.092	4.820	1.00	66.38
14081	C	THR	C	247	-55.177	22.082	3.225	1.00	67.57
14082	O	THR	C	247	-55.466	23.017	3.973	1.00	68.02
14083	N	ASP	C	248	-54.158	22.151	2.376	1.00	68.75
14084	CA	ASP	C	248	-53.390	23.389	2.263	1.00	69.81
14085	CB	ASP	C	248	-51.950	23.115	1.833	1.00	69.78
14086	CG	ASP	C	248	-51.197	22.270	2.838	1.00	70.26
14087	OD1	ASP	C	248	-50.312	21.494	2.420	1.00	70.80
14088	OD2	ASP	C	248	-51.423	22.316	4.068	1.00	70.35
14089	C	ASP	C	248	-54.075	24.341	1.286	1.00	70.64
14090	O	ASP	C	248	-54.036	25.565	1.453	1.00	70.76
14091	N	SER	C	249	-54.718	23.763	0.274	1.00	71.41
14092	CA	SER	C	249	-55.424	24.542	-0.738	1.00	72.19
14093	CB	SER	C	249	-55.500	23.774	-2.065	1.00	72.21
14094	OG	SER	C	249	-56.273	22.590	-1.945	1.00	71.64
14095	C	SER	C	249	-56.827	24.938	-0.279	1.00	72.92
14096	O	SER	C	249	-57.689	25.270	-1.100	1.00	73.16
14097	N	LEU	C	250	-57.057	24.900	1.030	1.00	73.60
14098	CA	LEU	C	250	-58.360	25.263	1.568	1.00	74.16
14099	CB	LEU	C	250	-58.530	24.787	3.016	1.00	74.23
14100	CG	LEU	C	250	-58.793	23.297	3.247	1.00	74.48
14101	CD1	LEU	C	250	-58.989	23.012	4.724	1.00	74.84
14102	CD2	LEU	C	250	-59.995	22.812	2.447	1.00	74.30
14103	C	LEU	C	250	-58.552	26.759	1.504	1.00	74.46
14104	O	LEU	C	250	-57.832	27.513	2.154	1.00	74.68
14105	N	SER	C	251	-59.513	27.183	0.696	1.00	74.74
14106	CA	SER	C	251	-59.874	28.587	0.619	1.00	74.97
14107	CB	SER	C	251	-60.143	28.985	-0.831	1.00	74.98
14108	OG	SER	C	251	-60.339	27.830	-1.635	1.00	75.33
14109	C	SER	C	251	-61.108	28.778	1.494	1.00	75.02
14110	O	SER	C	251	-61.910	27.853	1.646	1.00	75.26
14111	N	SER	C	252	-61.248	29.958	2.090	1.00	75.01
14112	CA	SER	C	252	-62.381	30.230	2.974	1.00	75.02
14113	CB	SER	C	252	-61.977	31.178	4.114	1.00	75.12
14114	OG	SER	C	252	-61.536	32.438	3.632	1.00	74.96
14115	C	SER	C	252	-63.589	30.779	2.221	1.00	75.05
14116	O	SER	C	252	-64.675	30.932	2.785	1.00	75.18
14117	N	VAL	C	253	-63.398	31.061	0.939	1.00	74.92

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**FIGURE 3 JQ**

A	B	C	D	E	F	G	H	I	J
14118	CA	VAL	C	253	-64.463	31.625	0.121	1.00	74.78
14119	CB	VAL	C	253	-63.973	32.869	-0.635	1.00	74.98
14120	CG1	VAL	C	253	-65.068	33.409	-1.549	1.00	75.28
14121	CG2	VAL	C	253	-63.507	33.942	0.345	1.00	75.20
14122	C	VAL	C	253	-64.983	30.619	-0.893	1.00	74.54
14123	O	VAL	C	253	-65.985	30.854	-1.577	1.00	74.56
14124	N	THR	C	254	-64.291	29.493	-0.992	1.00	74.00
14125	CA	THR	C	254	-64.680	28.472	-1.941	1.00	73.39
14126	CB	THR	C	254	-63.672	28.420	-3.090	1.00	73.52
14127	OG1	THR	C	254	-63.590	29.716	-3.695	1.00	73.59
14128	CG2	THR	C	254	-64.191	27.533	-4.212	1.00	73.80
14129	C	THR	C	254	-64.782	27.121	-1.257	1.00	72.75
14130	O	THR	C	254	-63.789	26.602	-0.731	1.00	72.46
14131	N	ASN	C	255	-65.994	26.570	-1.249	1.00	71.75
14132	CA	ASN	C	255	-66.223	25.262	-0.662	1.00	70.61
14133	CB	ASN	C	255	-67.600	24.710	-1.048	1.00	70.63
14134	CG	ASN	C	255	-68.724	25.334	-0.243	1.00	71.20
14135	OD1	ASN	C	255	-68.487	25.955	0.794	1.00	71.73
14136	ND2	ASN	C	255	-69.957	25.174	-0.718	1.00	72.81
14137	C	ASN	C	255	-65.119	24.324	-1.124	1.00	69.67
14138	O	ASN	C	255	-64.680	24.384	-2.274	1.00	69.53
14139	N	ALA	C	256	-64.655	23.475	-0.219	1.00	68.42
14140	CA	ALA	C	256	-63.585	22.549	-0.542	1.00	67.23
14141	CB	ALA	C	256	-63.119	21.826	0.709	1.00	67.12
14142	C	ALA	C	256	-64.039	21.554	-1.599	1.00	66.42
14143	O	ALA	C	256	-65.197	21.138	-1.617	1.00	66.17
14144	N	THR	C	257	-63.127	21.195	-2.495	1.00	65.41
14145	CA	THR	C	257	-63.431	20.214	-3.521	1.00	64.47
14146	CB	THR	C	257	-62.896	20.652	-4.908	1.00	64.80
14147	OG1	THR	C	257	-63.356	19.737	-5.917	1.00	65.37
14148	CG2	THR	C	257	-61.375	20.542	-4.977	1.00	64.56
14149	C	THR	C	257	-62.797	18.923	-3.056	1.00	63.52
14150	O	THR	C	257	-61.685	18.922	-2.530	1.00	63.59
14151	N	SER	C	258	-63.512	17.821	-3.209	1.00	62.13
14152	CA	SER	C	258	-63.002	16.557	-2.718	1.00	60.62
14153	CB	SER	C	258	-63.951	15.986	-1.666	1.00	60.88
14154	OG	SER	C	258	-64.412	17.019	-0.806	1.00	61.43
14155	C	SER	C	258	-62.821	15.585	-3.861	1.00	59.48
14156	O	SER	C	258	-63.725	15.397	-4.679	1.00	58.94
14157	N	ILE	C	259	-61.647	14.965	-3.903	1.00	58.18
14158	CA	ILE	C	259	-61.323	14.032	-4.967	1.00	56.94
14159	CB	ILE	C	259	-59.813	14.045	-5.284	1.00	57.27
14160	CG1	ILE	C	259	-59.326	15.480	-5.529	1.00	57.02
14161	CD1	ILE	C	259	-60.191	16.268	-6.503	1.00	57.66
14162	CG2	ILE	C	259	-59.512	13.112	-6.467	1.00	56.47
14163	C	ILE	C	259	-61.749	12.631	-4.614	1.00	56.04
14164	O	ILE	C	259	-61.228	12.020	-3.680	1.00	55.73
14165	N	GLN	C	260	-62.701	12.121	-5.382	1.00	54.99
14166	CA	GLN	C	260	-63.181	10.771	-5.182	1.00	53.54
14167	CB	GLN	C	260	-64.550	10.602	-5.834	1.00	53.37
14168	CG	GLN	C	260	-65.003	9.173	-5.955	1.00	52.83

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**FIGURE 3 JR**

A	B	C	D	E	F	G	H	I	J
14169	CD	GLN	C	260	-66.501	9.062	-6.058	1.00	52.58
14170	OE1	GLN	C	260	-67.165	9.987	-6.523	1.00	52.38
14171	NE2	GLN	C	260	-67.044	7.941	-5.604	1.00	51.95
14172	C	GLN	C	260	-62.216	9.772	-5.772	1.00	52.72
14173	O	GLN	C	260	-61.633	10.012	-6.821	1.00	52.95
14174	N	ILE	C	261	-62.024	8.666	-5.069	1.00	51.88
14175	CA	ILE	C	261	-61.265	7.540	-5.592	1.00	50.87
14176	CB	ILE	C	261	-60.093	7.154	-4.682	1.00	50.78
14177	CG1	ILE	C	261	-59.054	8.276	-4.640	1.00	50.76
14178	CD1	ILE	C	261	-57.869	7.981	-3.754	1.00	50.25
14179	CG2	ILE	C	261	-59.457	5.856	-5.164	1.00	50.19
14180	C	ILE	C	261	-62.268	6.416	-5.632	1.00	50.47
14181	O	ILE	C	261	-62.616	5.852	-4.602	1.00	50.34
14182	N	THR	C	262	-62.771	6.123	-6.818	1.00	50.10
14183	CA	THR	C	262	-63.742	5.059	-6.976	1.00	49.78
14184	CB	THR	C	262	-64.232	4.987	-8.436	1.00	50.03
14185	OG1	THR	C	262	-64.633	3.638	-8.732	1.00	51.14
14186	CG2	THR	C	262	-63.079	5.206	-9.389	1.00	49.30
14187	C	THR	C	262	-63.111	3.742	-6.614	1.00	49.16
14188	O	THR	C	262	-61.903	3.645	-6.486	1.00	49.47
14189	N	ALA	C	263	-63.940	2.725	-6.461	1.00	48.84
14190	CA	ALA	C	263	-63.459	1.384	-6.187	1.00	48.32
14191	CB	ALA	C	263	-64.470	0.632	-5.318	1.00	48.02
14192	C	ALA	C	263	-63.258	0.660	-7.516	1.00	47.91
14193	O	ALA	C	263	-63.867	1.019	-8.523	1.00	47.60
14194	N	PRO	C	264	-62.412	-0.364	-7.516	1.00	47.56
14195	CA	PRO	C	264	-62.154	-1.157	-8.724	1.00	47.36
14196	CB	PRO	C	264	-61.143	-2.204	-8.247	1.00	47.26
14197	CG	PRO	C	264	-60.533	-1.599	-7.027	1.00	47.84
14198	CD	PRO	C	264	-61.624	-0.830	-6.368	1.00	47.47
14199	C	PRO	C	264	-63.403	-1.840	-9.275	1.00	46.88
14200	O	PRO	C	264	-64.324	-2.197	-8.530	1.00	46.44
14201	N	ALA	C	265	-63.408	-2.036	-10.590	1.00	46.60
14202	CA	ALA	C	265	-64.536	-2.655	-11.280	1.00	45.96
14203	CB	ALA	C	265	-64.222	-2.851	-12.761	1.00	46.10
14204	C	ALA	C	265	-64.925	-3.975	-10.650	1.00	45.47
14205	O	ALA	C	265	-66.106	-4.271	-10.503	1.00	45.40
14206	N	SER	C	266	-63.932	-4.776	-10.282	1.00	45.07
14207	CA	SER	C	266	-64.211	-6.087	-9.691	1.00	44.62
14208	CB	SER	C	266	-62.923	-6.865	-9.440	1.00	44.26
14209	OG	SER	C	266	-61.973	-6.047	-8.785	1.00	43.86
14210	C	SER	C	266	-65.033	-5.945	-8.410	1.00	44.41
14211	O	SER	C	266	-65.690	-6.890	-7.978	1.00	44.20
14212	N	MET	C	267	-64.993	-4.755	-7.815	1.00	44.50
14213	CA	MET	C	267	-65.825	-4.451	-6.650	1.00	44.69
14214	CB	MET	C	267	-65.112	-3.477	-5.701	1.00	44.90
14215	CG	MET	C	267	-63.871	-4.043	-5.042	1.00	45.44
14216	SD	MET	C	267	-64.293	-5.235	-3.769	1.00	47.95
14217	CE	MET	C	267	-63.329	-6.664	-4.304	1.00	46.70
14218	C	MET	C	267	-67.157	-3.828	-7.083	1.00	44.34
14219	O	MET	C	267	-68.213	-4.219	-6.597	1.00	44.15

**REPLACEMENT SHEET**  
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**FIGURE 3 JS**

A	B	C	D	E	F	G	H	I	J
14220	N	LEU	C	268	-67.093	-2.873	-8.012	1.00	44.09
14221	CA	LEU	C	268	-68.274	-2.116	-8.432	1.00	44.09
14222	CB	LEU	C	268	-67.906	-1.030	-9.443	1.00	44.01
14223	CG	LEU	C	268	-67.101	0.162	-8.937	1.00	44.40
14224	CD1	LEU	C	268	-66.979	1.237	-10.015	1.00	43.41
14225	CD2	LEU	C	268	-67.709	0.730	-7.642	1.00	45.00
14226	C	LEU	C	268	-69.409	-2.958	-8.996	1.00	44.07
14227	O	LEU	C	268	-70.566	-2.567	-8.890	1.00	44.00
14228	N	ILE	C	269	-69.083	-4.114	-9.569	1.00	44.00
14229	CA	ILE	C	269	-70.101	-4.985	-10.159	1.00	44.30
14230	CB	ILE	C	269	-69.451	-6.166	-10.928	1.00	44.31
14231	CG1	ILE	C	269	-68.630	-7.021	-9.969	1.00	45.18
14232	CD1	ILE	C	269	-68.240	-8.361	-10.530	1.00	46.09
14233	CG2	ILE	C	269	-68.585	-5.669	-12.087	1.00	43.57
14234	C	ILE	C	269	-71.072	-5.555	-9.131	1.00	44.44
14235	O	ILE	C	269	-72.051	-6.214	-9.494	1.00	44.73
14236	N	GLY	C	270	-70.790	-5.345	-7.851	1.00	43.90
14237	CA	GLY	C	270	-71.658	-5.871	-6.818	1.00	43.72
14238	C	GLY	C	270	-71.495	-5.190	-5.475	1.00	43.60
14239	O	GLY	C	270	-70.819	-4.167	-5.345	1.00	43.14
14240	N	ASP	C	271	-72.119	-5.775	-4.465	1.00	43.63
14241	CA	ASP	C	271	-72.050	-5.223	-3.128	1.00	43.31
14242	CB	ASP	C	271	-73.116	-5.842	-2.245	1.00	43.86
14243	CG	ASP	C	271	-74.481	-5.241	-2.505	1.00	44.75
14244	OD1	ASP	C	271	-74.521	-4.094	-3.004	1.00	45.20
14245	OD2	ASP	C	271	-75.550	-5.826	-2.246	1.00	45.69
14246	C	ASP	C	271	-70.660	-5.439	-2.585	1.00	42.91
14247	O	ASP	C	271	-70.074	-6.490	-2.786	1.00	43.04
14248	N	HIS	C	272	-70.130	-4.427	-1.915	1.00	42.37
14249	CA	HIS	C	272	-68.750	-4.475	-1.460	1.00	41.96
14250	CB	HIS	C	272	-67.844	-4.054	-2.623	1.00	41.32
14251	CG	HIS	C	272	-68.232	-2.746	-3.240	1.00	38.55
14252	ND1	HIS	C	272	-69.211	-2.640	-4.203	1.00	34.97
14253	CE1	HIS	C	272	-69.344	-1.373	-4.556	1.00	34.24
14254	NE2	HIS	C	272	-68.491	-0.651	-3.851	1.00	35.77
14255	CD2	HIS	C	272	-67.781	-1.487	-3.021	1.00	36.40
14256	C	HIS	C	272	-68.518	-3.566	-0.255	1.00	42.07
14257	O	HIS	C	272	-69.423	-2.842	0.172	1.00	42.07
14258	N	TYR	C	273	-67.300	-3.588	0.278	1.00	42.29
14259	CA	TYR	C	273	-66.963	-2.765	1.439	1.00	42.72
14260	CB	TYR	C	273	-66.970	-3.606	2.716	1.00	42.37
14261	CG	TYR	C	273	-68.138	-4.548	2.907	1.00	41.64
14262	CD1	TYR	C	273	-69.362	-4.080	3.368	1.00	41.07
14263	CE1	TYR	C	273	-70.424	-4.942	3.574	1.00	40.67
14264	CZ	TYR	C	273	-70.271	-6.290	3.330	1.00	40.24
14265	OH	TYR	C	273	-71.343	-7.133	3.535	1.00	40.59
14266	CE2	TYR	C	273	-69.058	-6.788	2.884	1.00	40.36
14267	CD2	TYR	C	273	-67.999	-5.919	2.682	1.00	40.82
14268	C	TYR	C	273	-65.577	-2.124	1.355	1.00	43.60
14269	O	TYR	C	273	-64.675	-2.678	0.730	1.00	43.62
14270	N	LEU	C	274	-65.402	-0.970	1.994	1.00	44.77

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**FIGURE 3 JT**

A	B	C	D	E	F	G	H	I	J
14271	CA	LEU	C	274	-64.067	-0.416	2.155	1.00	46.15
14272	CB	LEU	C	274	-64.114	1.092	2.343	1.00	46.18
14273	CG	LEU	C	274	-62.768	1.700	2.732	1.00	46.97
14274	CD1	LEU	C	274	-61.658	1.166	1.829	1.00	47.57
14275	CD2	LEU	C	274	-62.832	3.229	2.702	1.00	47.36
14276	C	LEU	C	274	-63.553	-1.092	3.422	1.00	47.02
14277	O	LEU	C	274	-64.112	-0.883	4.492	1.00	46.97
14278	N	CYS	C	275	-62.528	-1.930	3.317	1.00	48.36
14279	CA	CYS	C	275	-62.078	-2.649	4.506	1.00	50.35
14280	CB	CYS	C	275	-62.272	-4.153	4.347	1.00	50.01
14281	SG	CYS	C	275	-61.346	-4.890	2.996	1.00	52.51
14282	C	CYS	C	275	-60.651	-2.360	4.956	1.00	51.53
14283	O	CYS	C	275	-60.147	-2.998	5.888	1.00	52.17
14284	N	ASP	C	276	-59.998	-1.413	4.297	1.00	52.41
14285	CA	ASP	C	276	-58.664	-1.032	4.702	1.00	53.27
14286	CB	ASP	C	276	-57.677	-2.175	4.511	1.00	53.57
14287	CG	ASP	C	276	-56.311	-1.848	5.074	1.00	54.87
14288	OD1	ASP	C	276	-55.310	-2.096	4.365	1.00	56.47
14289	OD2	ASP	C	276	-56.143	-1.328	6.204	1.00	54.19
14290	C	ASP	C	276	-58.174	0.203	3.977	1.00	53.65
14291	O	ASP	C	276	-58.278	0.318	2.757	1.00	53.84
14292	N	VAL	C	277	-57.641	1.125	4.763	1.00	53.91
14293	CA	VAL	C	277	-57.106	2.371	4.273	1.00	54.34
14294	CB	VAL	C	277	-58.036	3.548	4.625	1.00	54.24
14295	CG1	VAL	C	277	-57.453	4.869	4.134	1.00	54.06
14296	CG2	VAL	C	277	-59.414	3.324	4.048	1.00	54.19
14297	C	VAL	C	277	-55.757	2.574	4.958	1.00	54.98
14298	O	VAL	C	277	-55.683	2.734	6.188	1.00	54.79
14299	N	THR	C	278	-54.692	2.527	4.164	1.00	55.50
14300	CA	THR	C	278	-53.345	2.735	4.670	1.00	55.69
14301	CB	THR	C	278	-52.566	1.423	4.684	1.00	55.79
14302	OG1	THR	C	278	-53.233	0.472	5.523	1.00	55.96
14303	CG2	THR	C	278	-51.210	1.624	5.357	1.00	55.85
14304	C	THR	C	278	-52.622	3.741	3.786	1.00	55.98
14305	O	THR	C	278	-52.516	3.557	2.574	1.00	55.78
14306	N	TRP	C	279	-52.142	4.816	4.395	1.00	56.25
14307	CA	TRP	C	279	-51.394	5.828	3.674	1.00	56.54
14308	CB	TRP	C	279	-51.375	7.120	4.475	1.00	56.35
14309	CG	TRP	C	279	-52.436	8.091	4.107	1.00	55.30
14310	CD1	TRP	C	279	-53.543	8.416	4.838	1.00	53.48
14311	NE1	TRP	C	279	-54.278	9.373	4.183	1.00	52.45
14312	CE2	TRP	C	279	-53.651	9.683	3.004	1.00	53.78
14313	CD2	TRP	C	279	-52.484	8.897	2.928	1.00	54.42
14314	CE3	TRP	C	279	-51.662	9.031	1.805	1.00	54.58
14315	CZ3	TRP	C	279	-52.021	9.938	0.821	1.00	53.93
14316	CH2	TRP	C	279	-53.189	10.694	0.927	1.00	53.45
14317	CZ2	TRP	C	279	-54.015	10.580	2.007	1.00	54.14
14318	C	TRP	C	279	-49.966	5.349	3.480	1.00	57.14
14319	O	TRP	C	279	-49.249	5.127	4.455	1.00	57.29
14320	N	ALA	C	280	-49.561	5.172	2.227	1.00	57.66
14321	CA	ALA	C	280	-48.199	4.760	1.914	1.00	58.20

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FIGURE 3 JU

A	B	C	D	E	F	G	H	I	J
14322	CB	ALA	C	280	-48.136	4.169	0.526	1.00	57.88
14323	C	ALA	C	280	-47.247	5.952	2.028	1.00	58.89
14324	O	ALA	C	280	-46.257	5.897	2.758	1.00	59.08
14325	N	THR	C	281	-47.538	7.023	1.293	1.00	59.60
14326	CA	THR	C	281	-46.702	8.222	1.346	1.00	60.36
14327	CB	THR	C	281	-45.701	9.253	0.193	1.00	60.29
14328	OG1	THR	C	281	-46.287	8.976	-0.896	1.00	60.03
14329	CG2	THR	C	281	-45.461	6.863	-0.364	1.00	60.47
14330	C	THR	C	281	-47.481	9.522	1.247	1.00	60.88
14331	O	THR	C	281	-48.709	9.550	1.202	1.00	61.43
14332	N	GLN	C	282	-46.733	10.607	1.170	1.00	61.16
14333	CA	GLN	C	282	-47.343	11.904	1.032	1.00	61.59
14334	CB	GLN	C	282	-46.272	12.974	0.816	1.00	61.79
14335	CG	GLN	C	282	-45.423	13.237	2.038	1.00	63.16
14336	CD	GLN	C	282	-46.258	13.608	3.244	1.00	65.36
14337	OE1	GLN	C	282	-45.763	13.591	4.376	1.00	65.87
14338	NE2	GLN	C	282	-47.527	13.954	3.009	1.00	65.20
14339	C	GLN	C	282	-48.314	11.911	-0.135	1.00	61.32
14340	O	GLN	C	282	-49.249	12.711	-0.158	1.00	61.40
14341	N	GLU	C	283	-48.103	11.015	-1.095	1.00	61.05
14342	CA	GLU	C	283	-48.911	11.013	-2.314	1.00	60.95
14343	CB	GLU	C	283	-48.185	11.798	-3.420	1.00	61.02
14344	CG	GLU	C	283	-47.517	13.073	-2.913	1.00	61.35
14345	CD	GLU	C	283	-47.018	13.989	-4.019	1.00	61.87
14346	OE1	GLU	C	283	-46.959	15.219	-3.784	1.00	62.48
14347	OE2	GLU	C	283	-46.679	13.492	-5.114	1.00	61.70
14348	C	GLU	C	283	-49.276	9.606	-2.792	1.00	60.60
14349	O	GLU	C	283	-49.792	9.421	-3.889	1.00	60.67
14350	N	ARG	C	284	-48.988	8.610	-1.974	1.00	60.31
14351	CA	ARG	C	284	-49.396	7.257	-2.296	1.00	60.24
14352	CB	ARG	C	284	-48.186	6.333	-2.405	1.00	60.38
14353	CG	ARG	C	284	-48.513	4.966	-2.975	1.00	61.76
14354	CD	ARG	C	284	-47.297	4.070	-3.220	1.00	64.45
14355	NE	ARG	C	284	-47.024	3.849	-4.642	1.00	66.08
14356	CZ	ARG	C	284	-45.907	4.217	-5.258	1.00	67.07
14357	NH1	ARG	C	284	-44.946	4.839	-4.587	1.00	67.77
14358	NH2	ARG	C	284	-45.751	3.969	-6.549	1.00	67.48
14359	C	ARG	C	284	-50.354	6.789	-1.198	1.00	59.88
14360	O	ARG	C	284	-50.088	6.980	-0.006	1.00	59.99
14361	N	ILE	C	285	-51.479	6.205	-1.598	1.00	59.05
14362	CA	ILE	C	285	-52.471	5.739	-0.637	1.00	58.17
14363	CB	ILE	C	285	-53.586	6.808	-0.433	1.00	58.15
14364	CG1	ILE	C	285	-54.385	6.519	0.837	1.00	57.95
14365	CD1	ILE	C	285	-55.586	7.413	1.014	1.00	57.24
14366	CG2	ILE	C	285	-54.504	6.886	-1.639	1.00	57.93
14367	C	ILE	C	285	-53.034	4.375	-1.054	1.00	57.55
14368	O	ILE	C	285	-53.385	4.164	-2.213	1.00	57.33
14369	N	SER	C	286	-53.090	3.447	-0.102	1.00	56.84
14370	CA	SER	C	286	-53.557	2.086	-0.372	1.00	56.29
14371	CB	SER	C	286	-52.597	1.062	0.222	1.00	56.12
14372	OG	SER	C	286	-52.516	1.218	1.626	1.00	56.72

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**FIGURE 3 JV**

A	B	C	D	E	F	G	H	I	J
14373	C	SER	C	286	-54.957	1.842	0.172	1.00	55.84
14374	O	SER	C	286	-55.284	2.240	1.290	1.00	55.91
14375	N	LEU	C	287	-55.769	1.162	-0.626	1.00	55.13
14376	CA	LEU	C	287	-57.155	0.907	-0.288	1.00	54.33
14377	CB	LEU	C	287	-58.076	1.754	-1.173	1.00	54.49
14378	CG	LEU	C	287	-58.644	3.098	-0.714	1.00	54.81
14379	CD1	LEU	C	287	-59.270	3.804	-1.904	1.00	54.83
14380	CD2	LEU	C	287	-57.608	4.013	-0.054	1.00	56.22
14381	C	LEU	C	287	-57.466	-0.544	-0.541	1.00	53.83
14382	O	LEU	C	287	-57.085	-1.090	-1.570	1.00	53.38
14383	N	GLN	C	288	-58.152	-1.173	0.409	1.00	53.46
14384	CA	GLN	C	288	-58.595	-2.548	0.241	1.00	52.63
14385	CB	GLN	C	288	-58.025	-3.456	1.322	1.00	53.22
14386	CG	GLN	C	288	-56.586	-3.842	1.052	1.00	54.49
14387	CD	GLN	C	288	-56.334	-5.335	1.246	1.00	57.06
14388	OE1	GLN	C	288	-55.607	-5.726	2.159	1.00	55.92
14389	NE2	GLN	C	288	-56.933	-6.171	0.388	1.00	57.21
14390	C	GLN	C	288	-60.115	-2.596	0.208	1.00	51.78
14391	O	GLN	C	288	-60.792	-1.917	0.992	1.00	51.73
14392	N	TRP	C	289	-60.638	-3.380	-0.730	1.00	50.66
14393	CA	TRP	C	289	-62.070	-3.483	-0.950	1.00	49.28
14394	CB	TRP	C	289	-62.453	-2.905	-2.320	1.00	48.86
14395	CG	TRP	C	289	-62.150	-1.443	-2.541	1.00	46.49
14396	CD1	TRP	C	289	-60.994	-0.910	-3.041	1.00	44.92
14397	NE1	TRP	C	289	-61.092	0.460	-3.118	1.00	42.33
14398	CE2	TRP	C	289	-62.324	0.844	-2.670	1.00	43.12
14399	CD2	TRP	C	289	-63.023	-0.330	-2.298	1.00	44.71
14400	CE3	TRP	C	289	-64.326	-0.202	-1.813	1.00	44.04
14401	CZ3	TRP	C	289	-64.884	1.068	-1.710	1.00	43.97
14402	CH2	TRP	C	289	-64.164	2.209	-2.083	1.00	44.51
14403	CZ2	TRP	C	289	-62.884	2.118	-2.567	1.00	43.61
14404	C	TRP	C	289	-62.454	-4.948	-0.881	1.00	49.19
14405	O	TRP	C	289	-61.822	-5.794	-1.489	1.00	49.31
14406	N	LEU	C	290	-63.508	-5.238	-0.139	1.00	49.21
14407	CA	LEU	C	290	-63.944	-6.594	0.090	1.00	48.60
14408	CB	LEU	C	290	-64.100	-6.792	1.599	1.00	48.59
14409	CG	LEU	C	290	-63.826	-8.152	2.246	1.00	49.04
14410	CD1	LEU	C	290	-64.605	-8.255	3.553	1.00	47.77
14411	CD2	LEU	C	290	-64.197	-9.270	1.312	1.00	49.22
14412	C	LEU	C	290	-65.293	-6.758	-0.575	1.00	48.40
14413	O	LEU	C	290	-66.150	-5.885	-0.442	1.00	48.12
14414	N	ARG	C	291	-65.477	-7.860	-1.295	1.00	48.24
14415	CA	ARG	C	291	-66.765	-8.158	-1.896	1.00	49.00
14416	CB	ARG	C	291	-66.652	-9.306	-2.897	1.00	48.99
14417	CG	ARG	C	291	-66.392	-8.880	-4.335	1.00	49.44
14418	CD	ARG	C	291	-66.639	-10.001	-5.336	1.00	50.02
14419	NE	ARG	C	291	-66.123	-9.677	-6.661	1.00	50.57
14420	CZ	ARG	C	291	-65.444	-10.526	-7.417	1.00	50.24
14421	NH1	ARG	C	291	-65.011	-10.144	-8.609	1.00	51.60
14422	NH2	ARG	C	291	-65.196	-11.754	-6.981	1.00	48.39
14423	C	ARG	C	291	-67.718	-8.579	-0.797	1.00	49.32



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**FIGURE 3 JW**

A	B	C	D	E	F	G	H	I	J
14424	O	ARG	C	291	-67.283	-9.066	0.248	1.00	49.42
14425	N	ARG	C	292	-69.017	-8.406	-1.026	1.00	49.72
14426	CA	ARG	C	292	-69.996	-8.832	-0.034	1.00	49.95
14427	CB	ARG	C	292	-71.424	-8.540	-0.471	1.00	49.71
14428	CG	ARG	C	292	-72.395	-8.432	0.704	1.00	50.13
14429	CD	ARG	C	292	-73.849	-8.224	0.297	1.00	50.49
14430	NE	ARG	C	292	-74.792	-8.583	1.355	1.00	50.03
14431	CZ	ARG	C	292	-75.740	-7.764	1.797	1.00	50.25
14432	NH1	ARG	C	292	-76.568	-8.146	2.758	1.00	49.95
14433	NH2	ARG	C	292	-75.862	-6.554	1.273	1.00	49.66
14434	C	ARG	C	292	-69.787	-10.311	0.214	1.00	50.22
14435	O	ARG	C	292	-69.910	-10.789	1.343	1.00	50.41
14436	N	ILE	C	293	-69.483	-11.052	-0.840	1.00	50.37
14437	CA	ILE	C	293	-69.056	-12.418	-0.612	1.00	51.22
14438	CB	ILE	C	293	-69.220	-13.291	-1.847	1.00	51.01
14439	CG1	ILE	C	293	-70.706	-13.390	-2.208	1.00	52.32
14440	CD1	ILE	C	293	-71.002	-14.244	-3.455	1.00	53.85
14441	CG2	ILE	C	293	-68.682	-14.666	-1.560	1.00	50.54
14442	C	ILE	C	293	-67.599	-12.232	-0.212	1.00	51.23
14443	O	ILE	C	293	-66.733	-12.001	-1.051	1.00	51.38
14444	N	GLN	C	294	-67.347	-12.302	1.087	1.00	51.66
14445	CA	GLN	C	294	-66.048	-11.932	1.639	1.00	51.94
14446	CB	GLN	C	294	-66.199	-11.628	3.134	1.00	51.50
14447	CG	GLN	C	294	-67.131	-10.461	3.407	1.00	50.67
14448	CD	GLN	C	294	-67.444	-10.269	4.878	1.00	50.57
14449	OE1	GLN	C	294	-66.543	-10.300	5.730	1.00	48.42
14450	NE2	GLN	C	294	-68.726	-10.060	5.183	1.00	50.20
14451	C	GLN	C	294	-64.920	-12.937	1.396	1.00	52.57
14452	O	GLN	C	294	-64.089	-13.160	2.275	1.00	52.39
14453	N	ASN	C	295	-64.884	-13.530	0.205	1.00	53.31
14454	CA	ASN	C	295	-63.834	-14.485	-0.145	1.00	54.10
14455	CB	ASN	C	295	-64.446	-15.774	-0.677	1.00	54.21
14456	CG	ASN	C	295	-65.217	-15.549	-1.949	1.00	55.01
14457	OD1	ASN	C	295	-65.245	-14.438	-2.475	1.00	54.76
14458	ND2	ASN	C	295	-65.857	-16.593	-2.449	1.00	59.35
14459	C	ASN	C	295	-62.904	-13.923	-1.211	1.00	54.26
14460	O	ASN	C	295	-62.172	-14.673	-1.856	1.00	54.15
14461	N	TYR	C	296	-62.943	-12.607	-1.394	1.00	54.51
14462	CA	TYR	C	296	-62.166	-11.957	-2.438	1.00	54.91
14463	CB	TYR	C	296	-62.951	-12.018	-3.744	1.00	54.96
14464	CG	TYR	C	296	-62.203	-11.583	-4.996	1.00	55.31
14465	CD1	TYR	C	296	-61.633	-12.525	-5.847	1.00	56.36
14466	CE1	TYR	C	296	-60.971	-12.145	-7.005	1.00	56.44
14467	CZ	TYR	C	296	-60.882	-10.808	-7.330	1.00	55.82
14468	OH	TYR	C	296	-60.226	-10.438	-8.480	1.00	55.06
14469	CE2	TYR	C	296	-61.452	-9.855	-6.509	1.00	55.37
14470	CD2	TYR	C	296	-62.113	-10.246	-5.353	1.00	54.88
14471	C	TYR	C	296	-61.914	-10.508	-2.088	1.00	55.31
14472	O	TYR	C	296	-62.845	-9.725	-1.961	1.00	55.31
14473	N	SER	C	297	-60.654	-10.143	-1.931	1.00	56.14
14474	CA	SER	C	297	-60.323	-8.759	-1.650	1.00	57.08

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**FIGURE 3 JX**

A	B	C	D	E	F	G	H	I	J
14475	CB	SER	C	297	-59.656	-8.624	-0.284	1.00	56.99
14476	OG	SER	C	297	-58.256	-8.741	-0.402	1.00	57.32
14477	C	SER	C	297	-59.394	-8.250	-2.732	1.00	57.41
14478	O	SER	C	297	-58.746	-9.038	-3.407	1.00	57.69
14479	N	VAL	C	298	-59.348	-6.934	-2.903	1.00	58.11
14480	CA	VAL	C	298	-58.458	-6.313	-3.873	1.00	58.76
14481	CB	VAL	C	298	-59.208	-5.851	-5.134	1.00	58.70
14482	CG1	VAL	C	298	-59.782	-7.035	-5.887	1.00	58.20
14483	CG2	VAL	C	298	-58.272	-5.043	-6.032	1.00	58.65
14484	C	VAL	C	298	-57.790	-5.085	-3.273	1.00	59.55
14485	O	VAL	C	298	-58.458	-4.224	-2.692	1.00	59.52
14486	N	MET	C	299	-56.472	-4.996	-3.426	1.00	60.53
14487	CA	MET	C	299	-55.732	-3.841	-2.939	1.00	61.43
14488	CB	MET	C	299	-54.404	-4.265	-2.299	1.00	61.43
14489	CG	MET	C	299	-53.588	-3.093	-1.740	1.00	62.27
14490	SD	MET	C	299	-52.139	-3.591	-0.768	1.00	63.50
14491	CE	MET	C	299	-52.924	-4.583	0.481	1.00	63.92
14492	C	MET	C	299	-55.480	-2.849	-4.070	1.00	62.24
14493	O	MET	C	299	-55.001	-3.218	-5.142	1.00	62.05
14494	N	ASP	C	300	-55.823	-1.590	-3.828	1.00	63.35
14495	CA	ASP	C	300	-55.572	-0.526	-4.785	1.00	64.62
14496	CB	ASP	C	300	-56.854	0.233	-5.100	1.00	64.66
14497	CG	ASP	C	300	-57.238	0.136	-6.555	1.00	65.00
14498	OD1	ASP	C	300	-57.940	1.045	-7.043	1.00	65.37
14499	OD2	ASP	C	300	-56.880	-0.812	-7.283	1.00	65.18
14500	C	ASP	C	300	-54.534	0.461	-4.272	1.00	65.56
14501	O	ASP	C	300	-54.591	0.902	-3.128	1.00	65.55
14502	N	ILE	C	301	-53.586	0.814	-5.128	1.00	66.70
14503	CA	ILE	C	301	-52.578	1.792	-4.755	1.00	67.95
14504	CB	ILE	C	301	-51.176	1.182	-4.850	1.00	68.00
14505	CG1	ILE	C	301	-50.968	0.198	-3.694	1.00	68.09
14506	CD1	ILE	C	301	-50.287	-1.091	-4.094	1.00	68.21
14507	CG2	ILE	C	301	-50.120	2.275	-4.814	1.00	68.27
14508	C	ILE	C	301	-52.730	3.001	-5.657	1.00	68.62
14509	O	ILE	C	301	-52.661	2.890	-6.872	1.00	68.88
14510	N	CYS	C	302	-52.957	4.155	-5.052	1.00	69.66
14511	CA	CYS	C	302	-53.219	5.362	-5.809	1.00	70.78
14512	CB	CYS	C	302	-54.618	5.874	-5.474	1.00	71.02
14513	SG	CYS	C	302	-55.849	4.561	-5.295	1.00	72.11
14514	C	CYS	C	302	-52.193	6.446	-5.524	1.00	71.37
14515	O	CYS	C	302	-51.959	6.798	-4.371	1.00	71.38
14516	N	ASP	C	303	-51.586	6.973	-6.583	1.00	72.29
14517	CA	ASP	C	303	-50.606	8.043	-6.456	1.00	73.14
14518	CB	ASP	C	303	-49.437	7.831	-7.420	1.00	73.42
14519	CG	ASP	C	303	-48.692	6.532	-7.171	1.00	74.20
14520	OD1	ASP	C	303	-49.189	5.462	-7.587	1.00	75.36
14521	OD2	ASP	C	303	-47.590	6.490	-6.586	1.00	75.49
14522	C	ASP	C	303	-51.274	9.376	-6.760	1.00	73.50
14523	O	ASP	C	303	-52.187	9.448	-7.582	1.00	73.48
14524	N	TYR	C	304	-50.829	10.430	-6.090	1.00	74.11
14525	CA	TYR	C	304	-51.378	11.755	-6.342	1.00	74.88

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FIGURE 3 JY

A	B	C	D	E	F	G	H	I	J
14526	CB	TYR	C	304	-51.098	12.695	-5.170	1.00	74.65
14527	CG	TYR	C	304	-51.672	14.089	-5.334	1.00	74.89
14528	CD1	TYR	C	304	-53.040	14.309	-5.278	1.00	75.03
14529	CE1	TYR	C	304	-53.572	15.579	-5.424	1.00	75.07
14530	CZ	TYR	C	304	-52.737	16.655	-5.624	1.00	75.03
14531	OH	TYR	C	304	-53.276	17.918	-5.765	1.00	74.20
14532	CE2	TYR	C	304	-51.369	16.468	-5.682	1.00	75.20
14533	CD2	TYR	C	304	-50.845	15.187	-5.537	1.00	75.32
14534	C	TYR	C	304	-50.756	12.318	-7.607	1.00	75.54
14535	O	TYR	C	304	-49.532	12.397	-7.725	1.00	75.44
14536	N	ASP	C	305	-51.602	12.694	-8.559	1.00	76.52
14537	CA	ASP	C	305	-51.126	13.292	-9.802	1.00	77.39
14538	CB	ASP	C	305	-52.033	12.904	-10.970	1.00	77.39
14539	CG	ASP	C	305	-51.512	13.404	-12.302	1.00	78.00
14540	OD1	ASP	C	305	-51.085	14.580	-12.374	1.00	77.50
14541	OD2	ASP	C	305	-51.492	12.688	-13.328	1.00	78.32
14542	C	ASP	C	305	-51.074	14.810	-9.641	1.00	77.83
14543	O	ASP	C	305	-52.108	15.483	-9.674	1.00	77.69
14544	N	GLU	C	306	-49.866	15.341	-9.460	1.00	78.37
14545	CA	GLU	C	306	-49.677	16.779	-9.271	1.00	79.01
14546	CB	GLU	C	306	-48.192	17.126	-9.151	1.00	79.19
14547	CG	GLU	C	306	-47.653	17.082	-7.734	1.00	80.36
14548	CD	GLU	C	306	-46.824	18.307	-7.408	1.00	82.35
14549	OE1	GLU	C	306	-45.628	18.334	-7.777	1.00	82.84
14550	OE2	GLU	C	306	-47.375	19.250	-6.794	1.00	82.87
14551	C	GLU	C	306	-50.306	17.627	-10.376	1.00	79.06
14552	O	GLU	C	306	-50.726	18.762	-10.134	1.00	78.86
14553	N	SER	C	307	-50.360	17.074	-11.585	1.00	79.18
14554	CA	SER	C	307	-50.917	17.786	-12.731	1.00	79.30
14555	CB	SER	C	307	-50.448	17.143	-14.041	1.00	79.47
14556	OG	SER	C	307	-51.240	16.008	-14.375	1.00	79.74
14557	C	SER	C	307	-52.439	17.793	-12.687	1.00	79.20
14558	O	SER	C	307	-53.067	18.852	-12.620	1.00	79.19
14559	N	SER	C	308	-53.020	16.597	-12.741	1.00	78.99
14560	CA	SER	C	308	-54.467	16.424	-12.713	1.00	78.74
14561	CB	SER	C	308	-54.816	14.933	-12.653	1.00	78.75
14562	OG	SER	C	308	-54.502	14.263	-13.860	1.00	79.19
14563	C	SER	C	308	-55.098	17.119	-11.513	1.00	78.50
14564	O	SER	C	308	-56.164	17.732	-11.624	1.00	78.44
14565	N	GLY	C	309	-54.418	17.034	-10.371	1.00	78.09
14566	CA	GLY	C	309	-54.973	17.502	-9.115	1.00	77.62
14567	C	GLY	C	309	-55.847	16.336	-8.694	1.00	77.27
14568	O	GLY	C	309	-56.798	16.474	-7.922	1.00	77.29
14569	N	ARG	C	310	-55.471	15.170	-9.215	1.00	76.75
14570	CA	ARG	C	310	-56.234	13.938	-9.097	1.00	76.29
14571	CB	ARG	C	310	-56.544	13.446	-10.510	1.00	76.67
14572	CG	ARG	C	310	-57.716	12.506	-10.657	1.00	77.82
14573	CD	ARG	C	310	-58.190	12.440	-12.089	1.00	80.25
14574	NE	ARG	C	310	-58.131	13.769	-12.695	1.00	81.85
14575	CZ	ARG	C	310	-58.417	14.032	-13.964	1.00	82.78
14576	NH1	ARG	C	310	-58.789	13.056	-14.783	1.00	83.05

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**FIGURE 3 JZ**

A	B	C	D	E	F	G	H	I	J
14577	NH2	ARG	C	310	-58.331	15.278	-14.416	1.00	83.30
14578	C	ARG	C	310	-55.499	12.830	-8.350	1.00	75.51
14579	O	ARG	C	310	-54.401	13.028	-7.831	1.00	75.33
14580	N	TRP	C	311	-56.128	11.658	-8.324	1.00	74.65
14581	CA	TRP	C	311	-55.597	10.470	-7.673	1.00	73.84
14582	CB	TRP	C	311	-56.315	10.231	-6.345	1.00	73.24
14583	CG	TRP	C	311	-55.866	11.152	-5.275	1.00	70.69
14584	CD1	TRP	C	311	-56.414	12.352	-4.943	1.00	69.05
14585	NE1	TRP	C	311	-55.718	12.921	-3.905	1.00	67.69
14586	CE2	TRP	C	311	-54.691	12.087	-3.553	1.00	67.62
14587	CD2	TRP	C	311	-54.756	10.962	-4.399	1.00	68.33
14588	CE3	TRP	C	311	-53.808	9.949	-4.237	1.00	67.52
14589	CZ3	TRP	C	311	-52.842	10.091	-3.259	1.00	67.20
14590	CH2	TRP	C	311	-52.804	11.224	-2.435	1.00	66.27
14591	CZ2	TRP	C	311	-53.716	12.228	-2.565	1.00	66.28
14592	C	TRP	C	311	-55.791	9.263	-8.578	1.00	74.16
14593	O	TRP	C	311	-56.922	8.852	-8.834	1.00	74.25
14594	N	ASN	C	312	-54.694	8.682	-9.051	1.00	74.33
14595	CA	ASN	C	312	-54.797	7.543	-9.957	1.00	74.55
14596	CB	ASN	C	312	-54.113	7.859	-11.290	1.00	74.95
14597	CG	ASN	C	312	-54.852	8.918	-12.076	1.00	75.92
14598	OD1	ASN	C	312	-55.937	8.663	-12.611	1.00	77.19
14599	ND2	ASN	C	312	-54.282	10.121	-12.139	1.00	76.28
14600	C	ASN	C	312	-54.282	6.225	-9.398	1.00	74.28
14601	O	ASN	C	312	-53.158	6.140	-8.905	1.00	74.15
14602	N	CYS	C	313	-55.124	5.201	-9.485	1.00	74.00
14603	CA	CYS	C	313	-54.764	3.868	-9.035	1.00	73.85
14604	CB	CYS	C	313	-55.885	3.253	-8.189	1.00	73.88
14605	SG	CYS	C	313	-56.783	4.380	-7.095	1.00	73.03
14606	C	CYS	C	313	-54.536	3.006	-10.269	1.00	73.87
14607	O	CYS	C	313	-55.456	2.811	-11.064	1.00	73.94
14608	N	LEU	C	314	-53.317	2.497	-10.431	1.00	73.68
14609	CA	LEU	C	314	-52.974	1.682	-11.594	1.00	73.63
14610	CB	LEU	C	314	-51.464	1.691	-11.831	1.00	73.72
14611	CG	LEU	C	314	-50.863	2.884	-12.568	1.00	74.13
14612	CD1	LEU	C	314	-50.760	4.092	-11.651	1.00	74.86
14613	CD2	LEU	C	314	-51.679	3.202	-13.812	1.00	74.62
14614	C	LEU	C	314	-53.437	0.242	-11.454	1.00	73.50
14615	O	LEU	C	314	-53.186	-0.393	-10.433	1.00	73.75
14616	N	VAL	C	315	-54.096	-0.277	-12.487	1.00	73.13
14617	CA	VAL	C	315	-54.551	-1.662	-12.486	1.00	72.90
14618	CB	VAL	C	315	-55.179	-2.055	-13.840	1.00	72.97
14619	CG1	VAL	C	315	-55.332	-3.567	-13.946	1.00	73.14
14620	CG2	VAL	C	315	-56.518	-1.357	-14.039	1.00	73.14
14621	C	VAL	C	315	-53.383	-2.599	-12.204	1.00	72.68
14622	O	VAL	C	315	-53.522	-3.597	-11.489	1.00	72.80
14623	N	ALA	C	316	-52.228	-2.267	-12.771	1.00	72.27
14624	CA	ALA	C	316	-51.020	-3.067	-12.593	1.00	71.78
14625	CB	ALA	C	316	-49.902	-2.548	-13.490	1.00	71.86
14626	C	ALA	C	316	-50.570	-3.092	-11.131	1.00	71.30
14627	O	ALA	C	316	-49.776	-3.940	-10.730	1.00	71.34

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**FIGURE 3 KA**

A	B	C	D	E	F	G	H	I	J
14628	N	ARG	C	317	-51.081	-2.159	-10.338	1.00	70.48
14629	CA	ARG	C	317	-50.722	-2.099	-8.931	1.00	69.90
14630	CB	ARG	C	317	-50.824	-0.668	-8.414	1.00	70.05
14631	CG	ARG	C	317	-50.086	0.350	-9.252	1.00	70.18
14632	CD	ARG	C	317	-48.609	0.430	-8.972	1.00	69.99
14633	NE	ARG	C	317	-48.159	1.815	-9.004	1.00	70.37
14634	CZ	ARG	C	317	-46.948	2.204	-9.370	1.00	70.67
14635	NH1	ARG	C	317	-46.641	3.496	-9.362	1.00	70.79
14636	NH2	ARG	C	317	-46.042	1.306	-9.739	1.00	70.73
14637	C	ARG	C	317	-51.642	-2.998	-8.115	1.00	69.33
14638	O	ARG	C	317	-51.354	-3.308	-6.954	1.00	69.23
14639	N	GLN	C	318	-52.752	-3.403	-8.729	1.00	68.24
14640	CA	GLN	C	318	-53.723	-4.252	-8.060	1.00	67.00
14641	CB	GLN	C	318	-54.900	-4.585	-8.981	1.00	66.95
14642	CG	GLN	C	318	-56.048	-3.608	-8.865	1.00	66.42
14643	CD	GLN	C	318	-57.239	-4.009	-9.693	1.00	65.40
14644	OE1	GLN	C	318	-58.024	-3.158	-10.102	1.00	65.29
14645	NE2	GLN	C	318	-57.378	-5.306	-9.948	1.00	64.83
14646	C	GLN	C	318	-53.088	-5.530	-7.571	1.00	66.38
14647	O	GLN	C	318	-52.285	-6.149	-8.272	1.00	66.39
14648	N	HIS	C	319	-53.443	-5.903	-6.349	1.00	65.28
14649	CA	HIS	C	319	-53.007	-7.156	-5.767	1.00	64.24
14650	CB	HIS	C	319	-52.045	-6.920	-4.600	1.00	64.22
14651	CG	HIS	C	319	-50.725	-6.343	-5.009	1.00	63.32
14652	ND1	HIS	C	319	-50.474	-4.987	-5.018	1.00	62.54
14653	OE1	HIS	C	319	-49.234	-4.772	-5.420	1.00	62.04
14654	NE2	HIS	C	319	-48.672	-5.940	-5.674	1.00	62.83
14655	CD2	HIS	C	319	-49.582	-6.939	-5.424	1.00	62.88
14656	C	HIS	C	319	-54.268	-7.851	-5.296	1.00	63.78
14657	O	HIS	C	319	-55.200	-7.210	-4.804	1.00	63.69
14658	N	ILE	C	320	-54.311	-9.163	-5.442	1.00	63.04
14659	CA	ILE	C	320	-55.508	-9.884	-5.066	1.00	62.66
14660	CB	ILE	C	320	-56.010	-10.737	-6.250	1.00	62.59
14661	CG1	ILE	C	320	-56.427	-9.832	-7.410	1.00	62.72
14662	CD1	ILE	C	320	-56.905	-10.589	-8.650	1.00	62.92
14663	CG2	ILE	C	320	-57.159	-11.635	-5.814	1.00	62.38
14664	C	ILE	C	320	-55.307	-10.760	-3.843	1.00	62.36
14665	O	ILE	C	320	-54.356	-11.543	-3.776	1.00	62.58
14666	N	GLU	C	321	-56.191	-10.607	-2.866	1.00	61.71
14667	CA	GLU	C	321	-56.195	-11.502	-1.723	1.00	61.58
14668	CB	GLU	C	321	-56.042	-10.754	-0.400	1.00	61.42
14669	CG	GLU	C	321	-55.740	-11.662	0.786	1.00	61.79
14670	CD	GLU	C	321	-55.353	-10.882	2.033	1.00	62.23
14671	OE1	GLU	C	321	-54.974	-9.696	1.902	1.00	61.08
14672	OE2	GLU	C	321	-55.421	-11.465	3.143	1.00	62.69
14673	C	GLU	C	321	-57.514	-12.261	-1.793	1.00	61.44
14674	O	GLU	C	321	-58.592	-11.661	-1.816	1.00	61.59
14675	N	MET	C	322	-57.425	-13.583	-1.839	1.00	60.93
14676	CA	MET	C	322	-58.609	-14.408	-2.000	1.00	60.65
14677	CB	MET	C	322	-58.808	-14.696	-3.488	1.00	60.72
14678	CG	MET	C	322	-59.663	-15.880	-3.816	1.00	61.69

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**FIGURE 3 KB**

A	B	C	D	E	F	G	H	I	J
14679	SD	MET	C	322	-59.103	-16.592	-5.370	1.00	65.83
14680	CE	MET	C	322	-58.571	-15.104	-6.250	1.00	64.68
14681	C	MET	C	322	-58.472	-15.702	-1.204	1.00	60.20
14682	O	MET	C	322	-57.398	-16.007	-0.685	1.00	60.11
14683	N	SER	C	323	-59.567	-16.450	-1.105	1.00	59.52
14684	CA	SER	C	323	-59.584	-17.701	-0.374	1.00	58.94
14685	CB	SER	C	323	-59.984	-17.455	1.080	1.00	58.92
14686	OG	SER	C	323	-59.899	-18.644	1.845	1.00	59.19
14687	C	SER	C	323	-60.575	-18.632	-1.048	1.00	58.47
14688	O	SER	C	323	-61.602	-18.189	-1.536	1.00	58.18
14689	N	THR	C	324	-60.267	-19.921	-1.067	1.00	58.22
14690	CA	THR	C	324	-61.105	-20.903	-1.749	1.00	58.08
14691	CB	THR	C	324	-60.265	-21.616	-2.823	1.00	58.38
14692	OG1	THR	C	324	-59.069	-22.130	-2.223	1.00	58.37
14693	CG2	THR	C	324	-59.725	-20.599	-3.832	1.00	57.98
14694	C	THR	C	324	-61.706	-21.929	-0.788	1.00	57.73
14695	O	THR	C	324	-62.491	-22.789	-1.187	1.00	58.01
14696	N	THR	C	325	-61.315	-21.830	0.479	1.00	57.33
14697	CA	THR	C	325	-61.807	-22.697	1.536	1.00	56.80
14698	CB	THR	C	325	-60.625	-23.225	2.364	1.00	56.93
14699	OG1	THR	C	325	-59.795	-22.120	2.753	1.00	56.79
14700	CG2	THR	C	325	-59.701	-24.066	1.499	1.00	57.13
14701	C	THR	C	325	-62.741	-21.882	2.434	1.00	56.16
14702	O	THR	C	325	-63.568	-22.450	3.148	1.00	56.08
14703	N	GLY	C	326	-62.614	-20.556	2.400	1.00	55.15
14704	CA	GLY	C	326	-63.452	-19.713	3.233	1.00	54.06
14705	C	GLY	C	326	-63.409	-18.222	2.951	1.00	53.15
14706	O	GLY	C	326	-63.574	-17.767	1.815	1.00	53.35
14707	N	TRP	C	327	-63.191	-17.449	4.001	1.00	51.92
14708	CA	TRP	C	327	-63.186	-16.005	3.863	1.00	50.85
14709	CB	TRP	C	327	-63.990	-15.366	4.993	1.00	50.43
14710	CG	TRP	C	327	-63.464	-15.641	6.357	1.00	47.77
14711	CD1	TRP	C	327	-62.665	-14.831	7.097	1.00	46.59
14712	NE1	TRP	C	327	-62.401	-15.406	8.318	1.00	46.11
14713	CE2	TRP	C	327	-63.038	-16.615	8.381	1.00	46.40
14714	CD2	TRP	C	327	-63.724	-16.790	7.164	1.00	45.95
14715	CE3	TRP	C	327	-64.469	-17.954	6.984	1.00	45.56
14716	CZ3	TRP	C	327	-64.503	-18.887	7.996	1.00	45.26
14717	CH2	TRP	C	327	-63.806	-18.688	9.192	1.00	46.26
14718	CZ2	TRP	C	327	-63.072	-17.560	9.406	1.00	46.57
14719	C	TRP	C	327	-61.775	-15.463	3.840	1.00	50.69
14720	O	TRP	C	327	-60.816	-16.207	4.030	1.00	51.11
14721	N	VAL	C	328	-61.640	-14.164	3.628	1.00	50.50
14722	CA	VAL	C	328	-60.314	-13.580	3.535	1.00	50.67
14723	CB	VAL	C	328	-60.181	-12.646	2.309	1.00	50.76
14724	CG1	VAL	C	328	-61.431	-11.816	2.136	1.00	51.20
14725	CG2	VAL	C	328	-58.935	-11.786	2.422	1.00	50.20
14726	C	VAL	C	328	-59.895	-12.853	4.796	1.00	50.73
14727	O	VAL	C	328	-60.503	-11.853	5.188	1.00	51.04
14728	N	GLY	C	329	-58.834	-13.359	5.420	1.00	50.69
14729	CA	GLY	C	329	-58.316	-12.780	6.647	1.00	50.34

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**FIGURE 3 KC**

A	B	C	D	E	F	G	H	I	J
14730	C	GLY	C	329	-58.965	-13.429	7.851	1.00	50.30
14731	O	GLY	C	329	-59.818	-14.303	7.716	1.00	49.99
14732	N	ARG	C	330	-58.554	-13.019	9.038	1.00	50.33
14733	CA	ARG	C	330	-59.147	-13.577	10.237	1.00	50.67
14734	CB	ARG	C	330	-58.247	-13.335	11.448	1.00	50.93
14735	CG	ARG	C	330	-56.997	-14.226	11.391	1.00	51.71
14736	CD	ARG	C	330	-56.341	-14.515	12.738	1.00	52.29
14737	NE	ARG	C	330	-55.139	-13.724	12.905	1.00	53.20
14738	CZ	ARG	C	330	-53.919	-14.186	12.697	1.00	52.11
14739	NH1	ARG	C	330	-52.879	-13.381	12.851	1.00	51.07
14740	NH2	ARG	C	330	-53.744	-15.450	12.338	1.00	51.36
14741	C	ARG	C	330	-60.551	-13.016	10.407	1.00	50.42
14742	O	ARG	C	330	-61.517	-13.770	10.488	1.00	50.23
14743	N	PHE	C	331	-60.666	-11.693	10.431	1.00	50.29
14744	CA	PHE	C	331	-61.981	-11.060	10.452	1.00	50.57
14745	CB	PHE	C	331	-62.243	-10.347	11.779	1.00	50.22
14746	CG	PHE	C	331	-62.313	-11.282	12.953	1.00	50.45
14747	CD1	PHE	C	331	-63.487	-11.959	13.248	1.00	50.48
14748	CE1	PHE	C	331	-63.551	-12.834	14.314	1.00	50.64
14749	CZ	PHE	C	331	-62.434	-13.042	15.099	1.00	51.01
14750	CE2	PHE	C	331	-61.253	-12.374	14.809	1.00	50.31
14751	CD2	PHE	C	331	-61.198	-11.507	13.741	1.00	49.57
14752	C	PHE	C	331	-62.082	-10.119	9.252	1.00	51.11
14753	O	PHE	C	331	-63.177	-9.807	8.779	1.00	50.96
14754	N	ARG	C	332	-60.917	-9.698	8.761	1.00	51.50
14755	CA	ARG	C	332	-60.807	-8.871	7.567	1.00	52.05
14756	CB	ARG	C	332	-61.194	-7.413	7.853	1.00	52.13
14757	CG	ARG	C	332	-60.272	-6.643	8.791	1.00	53.45
14758	CD	ARG	C	332	-61.021	-5.621	9.644	1.00	56.29
14759	NE	ARG	C	332	-62.130	-6.284	10.342	1.00	58.60
14760	CZ	ARG	C	332	-62.363	-6.215	11.651	1.00	58.73
14761	NH1	ARG	C	332	-61.596	-5.477	12.438	1.00	58.14
14762	NH2	ARG	C	332	-63.385	-6.879	12.172	1.00	59.72
14763	C	ARG	C	332	-59.394	-8.957	6.980	1.00	52.20
14764	O	ARG	C	332	-58.442	-9.343	7.668	1.00	51.62
14765	N	PRO	C	333	-59.277	-8.651	5.690	1.00	52.39
14766	CA	PRO	C	333	-57.977	-8.575	5.020	1.00	52.50
14767	CB	PRO	C	333	-58.293	-7.762	3.772	1.00	52.48
14768	CG	PRO	C	333	-59.696	-8.168	3.439	1.00	52.79
14769	CD	PRO	C	333	-60.394	-8.407	4.762	1.00	52.36
14770	C	PRO	C	333	-56.990	-7.822	5.889	1.00	52.82
14771	O	PRO	C	333	-57.359	-6.809	6.497	1.00	52.91
14772	N	SER	C	334	-55.754	-8.306	5.944	1.00	52.91
14773	CA	SER	C	334	-54.743	-7.715	6.808	1.00	53.30
14774	CB	SER	C	334	-53.532	-8.646	6.917	1.00	53.34
14775	OG	SER	C	334	-52.712	-8.294	8.018	1.00	54.15
14776	C	SER	C	334	-54.324	-6.342	6.302	1.00	53.54
14777	O	SER	C	334	-54.462	-6.046	5.117	1.00	53.24
14778	N	GLU	C	335	-53.840	-5.497	7.209	1.00	53.95
14779	CA	GLU	C	335	-53.382	-4.169	6.832	1.00	54.84
14780	CB	GLU	C	335	-53.582	-3.161	7.970	1.00	54.79

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FIGURE 3 KD

A	B	C	D	E	F	G	H	I	J
14781	CG	GLU	C	335	-52.526	-3.173	9.074	1.00	55.64
14782	CD	GLU	C	335	-52.545	-4.432	9.939	1.00	56.05
14783	OE1	GLU	C	335	-53.529	-5.203	9.903	1.00	55.12
14784	OE2	GLU	C	335	-51.556	-4.649	10.664	1.00	57.44
14785	C	GLU	C	335	-51.921	-4.248	6.400	1.00	55.51
14786	O	GLU	C	335	-51.161	-5.072	6.915	1.00	55.48
14787	N	PRO	C	336	-51.542	-3.410	5.435	1.00	56.22
14788	CA	PRO	C	336	-50.186	-3.396	4.879	1.00	56.76
14789	CB	PRO	C	336	-50.443	-2.846	3.488	1.00	56.76
14790	CG	PRO	C	336	-51.425	-1.743	3.801	1.00	56.17
14791	CD	PRO	C	336	-52.401	-2.421	4.755	1.00	56.21
14792	C	PRO	C	336	-49.246	-2.436	5.600	1.00	57.44
14793	O	PRO	C	336	-49.669	-1.389	6.103	1.00	57.27
14794	N	HIS	C	337	-47.968	-2.787	5.640	1.00	58.37
14795	CA	HIS	C	337	-46.973	-1.896	6.234	1.00	59.44
14796	CB	HIS	C	337	-46.302	-2.541	7.440	1.00	59.29
14797	CG	HIS	C	337	-47.224	-2.719	8.601	1.00	60.00
14798	ND1	HIS	C	337	-48.054	-3.812	8.730	1.00	60.63
14799	CE1	HIS	C	337	-48.759	-3.694	9.840	1.00	61.42
14800	NE2	HIS	C	337	-48.422	-2.560	10.431	1.00	61.34
14801	CD2	HIS	C	337	-47.470	-1.928	9.671	1.00	60.58
14802	C	HIS	C	337	-45.961	-1.515	5.175	1.00	59.88
14803	O	HIS	C	337	-45.146	-2.336	4.760	1.00	59.79
14804	N	PHE	C	338	-46.031	-0.264	4.741	1.00	60.83
14805	CA	PHE	C	338	-45.199	0.224	3.647	1.00	61.83
14806	CB	PHE	C	338	-45.886	1.403	2.963	1.00	61.84
14807	CG	PHE	C	338	-47.182	1.041	2.305	1.00	62.19
14808	CD1	PHE	C	338	-48.387	1.244	2.957	1.00	61.45
14809	CE1	PHE	C	338	-49.576	0.907	2.350	1.00	62.03
14810	CZ	PHE	C	338	-49.572	0.333	1.087	1.00	62.44
14811	CE2	PHE	C	338	-48.381	0.124	0.430	1.00	63.09
14812	CD2	PHE	C	338	-47.194	0.477	1.039	1.00	63.13
14813	C	PHE	C	338	-43.792	0.629	4.046	1.00	62.61
14814	O	PHE	C	338	-43.585	1.302	5.059	1.00	62.69
14815	N	THR	C	339	-42.822	0.202	3.243	1.00	63.56
14816	CA	THR	C	339	-41.450	0.643	3.429	1.00	64.18
14817	CB	THR	C	339	-40.504	-0.087	2.470	1.00	64.13
14818	OG1	THR	C	339	-40.739	0.365	1.128	1.00	64.53
14819	CG2	THR	C	339	-40.841	-1.555	2.422	1.00	64.14
14820	C	THR	C	339	-41.465	2.125	3.104	1.00	64.46
14821	O	THR	C	339	-42.241	2.569	2.261	1.00	64.54
14822	N	LEU	C	340	-40.601	2.875	3.770	1.00	65.17
14823	CA	LEU	C	340	-40.517	4.324	3.625	1.00	65.83
14824	CB	LEU	C	340	-39.205	4.826	4.230	1.00	66.16
14825	CG	LEU	C	340	-38.916	6.328	4.240	1.00	66.50
14826	CD1	LEU	C	340	-40.027	7.111	4.935	1.00	67.20
14827	CD2	LEU	C	340	-37.580	6.568	4.927	1.00	67.69
14828	C	LEU	C	340	-40.674	4.872	2.209	1.00	66.08
14829	O	LEU	C	340	-41.340	5.889	2.016	1.00	66.20
14830	N	ASP	C	341	-40.063	4.226	1.220	1.00	66.47
14831	CA	ASP	C	341	-40.159	4.747	-0.142	1.00	66.83



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**FIGURE 3 KE**

A	B	C	D	E	F	G	H	I	J
14832	CB	ASP	C	341	-39.072	4.165	-1.050	1.00	66.88
14833	CG	ASP	C	341	-39.254	2.686	-1.306	1.00	67.29
14834	OD1	ASP	C	341	-38.389	2.086	-1.981	1.00	67.46
14835	OD2	ASP	C	341	-40.232	2.041	-0.879	1.00	68.13
14836	C	ASP	C	341	-41.567	4.540	-0.709	1.00	67.00
14837	O	ASP	C	341	-42.017	5.279	-1.590	1.00	66.86
14838	N	GLY	C	342	-42.255	3.531	-0.180	1.00	67.15
14839	CA	GLY	C	342	-43.631	3.242	-0.546	1.00	67.47
14840	C	GLY	C	342	-43.832	2.363	-1.766	1.00	67.62
14841	O	GLY	C	342	-44.958	2.186	-2.228	1.00	67.62
14842	N	ASN	C	343	-42.750	1.812	-2.297	1.00	67.70
14843	CA	ASN	C	343	-42.856	0.967	-3.476	1.00	67.94
14844	CB	ASN	C	343	-41.730	1.290	-4.451	1.00	68.36
14845	CG	ASN	C	343	-41.353	2.761	-4.424	1.00	69.30
14846	OD1	ASN	C	343	-42.196	3.639	-4.640	1.00	70.24
14847	ND2	ASN	C	343	-40.088	3.039	-4.136	1.00	69.74
14848	C	ASN	C	343	-42.834	-0.497	-3.073	1.00	67.71
14849	O	ASN	C	343	-42.850	-1.399	-3.915	1.00	67.91
14850	N	SER	C	344	-42.807	-0.718	-1.765	1.00	67.27
14851	CA	SER	C	344	-42.812	-2.054	-1.198	1.00	66.98
14852	CB	SER	C	344	-41.386	-2.493	-0.882	1.00	67.02
14853	OG	SER	C	344	-41.383	-3.483	0.127	1.00	66.88
14854	C	SER	C	344	-43.647	-2.057	0.075	1.00	66.84
14855	O	SER	C	344	-43.882	-1.004	0.671	1.00	66.80
14856	N	PHE	C	345	-44.101	-3.236	0.490	1.00	66.62
14857	CA	PHE	C	345	-44.883	-3.348	1.718	1.00	66.60
14858	CB	PHE	C	345	-46.257	-2.682	1.565	1.00	66.55
14859	CG	PHE	C	345	-47.204	-3.421	0.659	1.00	66.13
14860	CD1	PHE	C	345	-47.889	-4.536	1.105	1.00	66.16
14861	CE1	PHE	C	345	-48.764	-5.209	0.276	1.00	65.55
14862	CZ	PHE	C	345	-48.974	-4.764	-1.008	1.00	65.27
14863	CE2	PHE	C	345	-48.308	-3.650	-1.464	1.00	66.07
14864	CD2	PHE	C	345	-47.431	-2.979	-0.630	1.00	66.28
14865	C	PHE	C	345	-45.040	-4.789	2.181	1.00	66.56
14866	O	PHE	C	345	-44.968	-5.718	1.379	1.00	66.80
14867	N	TYR	C	346	-45.255	-4.968	3.481	1.00	66.39
14868	CA	TYR	C	346	-45.433	-6.298	4.058	1.00	66.27
14869	CB	TYR	C	346	-44.439	-6.540	5.199	1.00	66.30
14870	CG	TYR	C	346	-42.979	-6.360	4.849	1.00	66.10
14871	CD1	TYR	C	346	-42.160	-7.457	4.635	1.00	66.33
14872	CE1	TYR	C	346	-40.823	-7.298	4.328	1.00	66.82
14873	CZ	TYR	C	346	-40.286	-6.030	4.237	1.00	66.97
14874	OH	TYR	C	346	-38.949	-5.870	3.920	1.00	67.38
14875	CE2	TYR	C	346	-41.082	-4.925	4.449	1.00	66.61
14876	CD2	TYR	C	346	-42.416	-5.095	4.758	1.00	65.95
14877	C	TYR	C	346	-46.841	-6.438	4.621	1.00	66.27
14878	O	TYR	C	346	-47.456	-5.446	5.031	1.00	66.28
14879	N	LYS	C	347	-47.342	-7.671	4.655	1.00	66.10
14880	CA	LYS	C	347	-48.659	-7.939	5.220	1.00	66.03
14881	CB	LYS	C	347	-49.759	-7.368	4.327	1.00	66.14
14882	CG	LYS	C	347	-50.027	-8.200	3.100	1.00	66.48

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**FIGURE 3 KF**

A	B	C	D	E	F	G	H	I	J
14883	CD	LYS	C	347	-51.517	-8.351	2.866	1.00	66.66
14884	CE	LYS	C	347	-52.218	-7.008	2.779	1.00	67.11
14885	NZ	LYS	C	347	-53.687	-7.213	2.633	1.00	67.50
14886	C	LYS	C	347	-48.909	-9.430	5.453	1.00	65.79
14887	O	LYS	C	347	-48.432	-10.277	4.695	1.00	65.82
14888	N	ILE	C	348	-49.670	-9.738	6.502	1.00	65.44
14889	CA	ILE	C	348	-49.997	-11.118	6.842	1.00	65.31
14890	CB	ILE	C	348	-50.481	-11.223	8.312	1.00	65.30
14891	CG1	ILE	C	348	-49.332	-10.980	9.297	1.00	65.22
14892	CD1	ILE	C	348	-49.331	-9.614	9.940	1.00	64.91
14893	CG2	ILE	C	348	-51.115	-12.582	8.564	1.00	64.62
14894	C	ILE	C	348	-51.073	-11.684	5.924	1.00	65.15
14895	O	ILE	C	348	-52.147	-11.109	5.797	1.00	65.21
14896	N	ILE	C	349	-50.777	-12.809	5.282	1.00	65.19
14897	CA	ILE	C	349	-51.745	-13.496	4.432	1.00	65.26
14898	CB	ILE	C	349	-51.525	-13.182	2.943	1.00	65.13
14899	CG1	ILE	C	349	-50.110	-13.564	2.511	1.00	64.92
14900	CD1	ILE	C	349	-49.995	-13.839	1.030	1.00	64.34
14901	CG2	ILE	C	349	-51.805	-11.750	2.646	1.00	65.13
14902	C	ILE	C	349	-51.612	-14.993	4.617	1.00	65.53
14903	O	ILE	C	349	-50.617	-15.467	5.153	1.00	65.52
14904	N	SER	C	350	-52.609	-15.739	4.152	1.00	66.02
14905	CA	SER	C	350	-52.567	-17.192	4.247	1.00	66.59
14906	CB	SER	C	350	-53.958	-17.790	4.044	1.00	66.61
14907	OG	SER	C	350	-53.891	-19.204	3.976	1.00	66.59
14908	C	SER	C	350	-51.607	-17.742	3.200	1.00	67.03
14909	O	SER	C	350	-51.184	-17.017	2.298	1.00	67.24
14910	N	ASN	C	351	-51.260	-19.020	3.316	1.00	67.27
14911	CA	ASN	C	351	-50.343	-19.628	2.357	1.00	67.38
14912	CB	ASN	C	351	-48.954	-19.826	2.973	1.00	67.28
14913	CG	ASN	C	351	-48.891	-21.010	3.909	1.00	66.52
14914	OD1	ASN	C	351	-49.590	-21.999	3.721	1.00	65.01
14915	ND2	ASN	C	351	-48.031	-20.921	4.916	1.00	66.38
14916	C	ASN	C	351	-50.873	-20.921	1.748	1.00	67.65
14917	O	ASN	C	351	-52.049	-21.252	1.898	1.00	67.66
14918	N	GLU	C	352	-49.997	-21.641	1.057	1.00	68.00
14919	CA	GLU	C	352	-50.377	-22.875	0.396	1.00	68.26
14920	CB	GLU	C	352	-49.253	-23.357	-0.532	1.00	68.64
14921	CG	GLU	C	352	-48.040	-23.953	0.176	1.00	69.60
14922	CD	GLU	C	352	-47.205	-22.926	0.922	1.00	70.82
14923	OE1	GLU	C	352	-46.343	-23.349	1.723	1.00	71.80
14924	OE2	GLU	C	352	-47.402	-21.706	0.709	1.00	70.61
14925	C	GLU	C	352	-50.722	-23.930	1.430	1.00	68.05
14926	O	GLU	C	352	-51.538	-24.812	1.170	1.00	68.26
14927	N	GLU	C	353	-50.106	-23.840	2.606	1.00	67.86
14928	CA	GLU	C	353	-50.360	-24.809	3.672	1.00	67.65
14929	CB	GLU	C	353	-49.065	-25.161	4.419	1.00	67.87
14930	CG	GLU	C	353	-48.117	-26.062	3.634	1.00	68.50
14931	CD	GLU	C	353	-48.356	-27.542	3.892	1.00	69.62
14932	OE1	GLU	C	353	-47.364	-28.307	3.971	1.00	69.66
14933	OE2	GLU	C	353	-49.534	-27.942	4.023	1.00	69.65

**REPLACEMENT SHEET**  
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**FIGURE 3 (KG)**

A	B	C	D	E	F	G	H	I	J
14934	C	GLU	C	353	-51.422	-24.278	4.629	1.00	67.08
14935	O	GLU	C	353	-51.915	-25.003	5.492	1.00	66.87
14936	N	GLY	C	354	-51.753	-22.998	4.472	1.00	66.52
14937	CA	GLY	C	354	-52.818	-22.375	5.232	1.00	65.69
14938	C	GLY	C	354	-52.420	-21.564	6.444	1.00	65.14
14939	O	GLY	C	354	-53.274	-21.089	7.185	1.00	65.63
14940	N	TYR	C	355	-51.134	-21.383	6.668	1.00	64.36
14941	CA	TYR	C	355	-50.734	-20.623	7.839	1.00	63.70
14942	CB	TYR	C	355	-49.549	-21.285	8.541	1.00	63.55
14943	CG	TYR	C	355	-49.924	-22.646	9.084	1.00	63.58
14944	CD1	TYR	C	355	-50.245	-23.688	8.226	1.00	62.90
14945	CE1	TYR	C	355	-50.602	-24.928	8.708	1.00	63.30
14946	CZ	TYR	C	355	-50.652	-25.142	10.066	1.00	63.76
14947	OH	TYR	C	355	-51.011	-26.383	10.549	1.00	64.11
14948	CE2	TYR	C	355	-50.347	-24.121	10.941	1.00	63.99
14949	CD2	TYR	C	355	-49.990	-22.880	10.449	1.00	63.60
14950	C	TYR	C	355	-50.472	-19.184	7.462	1.00	63.29
14951	O	TYR	C	355	-50.000	-18.895	6.368	1.00	63.27
14952	N	ARG	C	356	-50.803	-18.276	8.367	1.00	62.80
14953	CA	ARG	C	356	-50.681	-16.860	8.069	1.00	62.47
14954	CB	ARG	C	356	-51.798	-16.077	8.766	1.00	62.13
14955	CG	ARG	C	356	-53.127	-16.782	8.586	1.00	60.75
14956	CD	ARG	C	356	-54.368	-16.005	8.951	1.00	57.23
14957	NE	ARG	C	356	-55.511	-16.694	8.369	1.00	55.24
14958	CZ	ARG	C	356	-56.241	-16.218	7.374	1.00	53.37
14959	NH1	ARG	C	356	-55.978	-15.012	6.864	1.00	50.50
14960	NH2	ARG	C	356	-57.245	-16.944	6.898	1.00	51.24
14961	C	ARG	C	356	-49.292	-16.334	8.392	1.00	62.56
14962	O	ARG	C	356	-48.883	-16.250	9.556	1.00	62.37
14963	N	HIS	C	357	-48.562	-15.997	7.337	1.00	62.62
14964	CA	HIS	C	357	-47.199	-15.524	7.496	1.00	62.90
14965	CB	HIS	C	357	-46.203	-16.576	7.013	1.00	62.31
14966	CG	HIS	C	357	-46.150	-17.783	7.892	1.00	60.17
14967	ND1	HIS	C	357	-45.494	-17.787	9.103	1.00	58.55
14968	CE1	HIS	C	357	-45.627	-18.972	9.670	1.00	58.54
14969	NE2	HIS	C	357	-46.349	-19.737	8.870	1.00	58.37
14970	CD2	HIS	C	357	-46.696	-19.013	7.755	1.00	58.71
14971	C	HIS	C	357	-46.980	-14.201	6.801	1.00	63.76
14972	O	HIS	C	357	-47.716	-13.837	5.879	1.00	63.54
14973	N	ILE	C	358	-45.979	-13.471	7.275	1.00	64.84
14974	CA	ILE	C	358	-45.676	-12.179	6.702	1.00	66.26
14975	CB	ILE	C	358	-44.607	-11.448	7.517	1.00	65.95
14976	CG1	ILE	C	358	-45.120	-11.189	8.933	1.00	66.20
14977	CD1	ILE	C	358	-44.100	-10.576	9.867	1.00	65.33
14978	CG2	ILE	C	358	-44.247	-10.138	6.841	1.00	65.73
14979	C	ILE	C	358	-45.210	-12.369	5.275	1.00	67.47
14980	O	ILE	C	358	-44.450	-13.288	4.967	1.00	67.57
14981	N	CYS	C	359	-45.693	-11.516	4.389	1.00	69.11
14982	CA	CYS	C	359	-45.241	-11.591	3.023	1.00	70.84
14983	CB	CYS	C	359	-46.330	-12.095	2.103	1.00	70.96
14984	SG	CYS	C	359	-45.668	-12.166	0.445	1.00	73.62

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**FIGURE 3 KH**

A	B	C	D	E	F	G	H	I	J
14985	C	CYS	C	359	-44.700	-10.266	2.513	1.00	71.46
14986	O	CYS	C	359	-45.218	-9.199	2.842	1.00	71.59
14987	N	TYR	C	360	-43.646	-10.354	1.710	1.00	72.46
14988	CA	TYR	C	360	-43.033	-9.181	1.115	1.00	73.46
14989	CB	TYR	C	360	-41.522	-9.371	0.985	1.00	73.67
14990	CG	TYR	C	360	-40.782	-8.135	0.549	1.00	74.14
14991	CD1	TYR	C	360	-40.284	-8.016	-0.741	1.00	74.81
14992	CE1	TYR	C	360	-39.606	-6.882	-1.137	1.00	75.14
14993	CZ	TYR	C	360	-39.419	-5.847	-0.238	1.00	75.23
14994	OH	TYR	C	360	-39.745	-4.711	-0.622	1.00	75.50
14995	CE2	TYR	C	360	-39.905	-5.944	1.044	1.00	75.19
14996	CD2	TYR	C	360	-40.580	-7.088	1.429	1.00	74.65
14997	C	TYR	C	360	-43.653	-8.940	-0.250	1.00	74.04
14998	O	TYR	C	360	-43.665	-9.823	-1.114	1.00	74.02
14999	N	PHE	C	361	-44.186	-7.738	-0.424	1.00	74.72
15000	CA	PHE	C	361	-44.819	-7.341	-1.666	1.00	75.53
15001	CB	PHE	C	361	-46.286	-6.970	-1.414	1.00	75.32
15002	CG	PHE	C	361	-47.231	-8.146	-1.357	1.00	75.18
15003	CD1	PHE	C	361	-47.857	-8.607	-2.504	1.00	75.00
15004	CE1	PHE	C	361	-48.736	-9.679	-2.457	1.00	74.71
15005	CZ	PHE	C	361	-49.011	-10.289	-1.254	1.00	74.46
15006	CE2	PHE	C	361	-48.404	-9.833	-0.099	1.00	75.01
15007	CD2	PHE	C	361	-47.524	-8.762	-0.153	1.00	74.85
15008	C	PHE	C	361	-44.108	-6.110	-2.215	1.00	76.21
15009	O	PHE	C	361	-43.591	-5.292	-1.459	1.00	76.39
15010	N	GLN	C	362	-44.073	-5.985	-3.534	1.00	77.02
15011	CA	GLN	C	362	-43.550	-4.778	-4.155	1.00	77.85
15012	CB	GLN	C	362	-42.231	-5.034	-4.883	1.00	78.01
15013	CG	GLN	C	362	-41.033	-4.401	-4.179	1.00	78.37
15014	CD	GLN	C	362	-39.840	-5.335	-4.085	1.00	78.51
15015	OE1	GLN	C	362	-38.808	-4.970	-3.523	1.00	79.17
15016	NE2	GLN	C	362	-39.984	-6.545	-4.616	1.00	78.28
15017	C	GLN	C	362	-44.596	-4.185	-5.081	1.00	78.28
15018	O	GLN	C	362	-45.181	-4.883	-5.908	1.00	78.29
15019	N	ILE	C	363	-44.827	-2.891	-4.914	1.00	78.94
15020	CA	ILE	C	363	-45.822	-2.141	-5.675	1.00	79.80
15021	CB	ILE	C	363	-45.522	-0.624	-5.530	1.00	79.78
15022	CG1	ILE	C	363	-45.905	-0.145	-4.130	1.00	79.68
15023	CD1	ILE	C	363	-47.258	-0.584	-3.695	1.00	79.04
15024	CG2	ILE	C	363	-46.248	0.197	-6.569	1.00	79.98
15025	C	ILE	C	363	-46.005	-2.533	-7.156	1.00	80.30
15026	O	ILE	C	363	-46.978	-2.126	-7.782	1.00	80.38
15027	N	ASP	C	364	-45.110	-3.345	-7.710	1.00	80.94
15028	CA	ASP	C	364	-45.197	-3.666	-9.136	1.00	81.68
15029	CB	ASP	C	364	-43.931	-3.201	-9.857	1.00	81.66
15030	CG	ASP	C	364	-44.057	-1.795	-10.395	1.00	82.02
15031	OD1	ASP	C	364	-44.820	-1.609	-11.370	1.00	82.04
15032	OD2	ASP	C	364	-43.440	-0.819	-9.911	1.00	81.88
15033	C	ASP	C	364	-45.495	-5.109	-9.540	1.00	82.16
15034	O	ASP	C	364	-46.036	-5.344	-10.623	1.00	82.07
15035	N	LYS	C	365	-45.148	-6.072	-8.690	1.00	82.73

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**FIGURE 3 KI**

A	B	C	D	E	F	G	H	I	J
15036	CA	LYS	C	365	-45.289	-7.479	-9.065	1.00	83.29
15037	CB	LYS	C	365	-43.984	-8.227	-8.806	1.00	83.44
15038	CG	LYS	C	365	-42.759	-7.538	-9.376	1.00	84.51
15039	CD	LYS	C	365	-41.613	-8.533	-9.512	1.00	86.86
15040	CE	LYS	C	365	-40.252	-7.873	-9.311	1.00	87.71
15041	NZ	LYS	C	365	-39.224	-8.880	-8.916	1.00	88.36
15042	C	LYS	C	365	-46.455	-8.219	-8.411	1.00	83.34
15043	O	LYS	C	365	-46.762	-8.019	-7.235	1.00	83.50
15044	N	LYS	C	366	-47.075	-9.106	-9.183	1.00	83.35
15045	CA	LYS	C	366	-48.243	-9.844	-8.721	1.00	83.39
15046	CB	LYS	C	366	-49.036	-10.411	-9.910	1.00	83.60
15047	CG	LYS	C	366	-48.626	-11.814	-10.355	1.00	84.31
15048	CD	LYS	C	366	-47.487	-11.797	-11.371	1.00	85.61
15049	CE	LYS	C	366	-47.186	-13.206	-11.897	1.00	86.23
15050	NZ	LYS	C	366	-48.397	-13.882	-12.470	1.00	86.15
15051	C	LYS	C	366	-47.941	-10.962	-7.725	1.00	83.10
15052	O	LYS	C	366	-48.848	-11.444	-7.045	1.00	83.31
15053	N	ASP	C	367	-46.685	-11.381	-7.615	1.00	82.61
15054	CA	ASP	C	367	-46.419	-12.516	-6.734	1.00	82.00
15055	CB	ASP	C	367	-46.002	-13.772	-7.508	1.00	82.19
15056	CG	ASP	C	367	-47.194	-14.657	-7.854	1.00	82.72
15057	OD1	ASP	C	367	-48.236	-14.113	-8.284	1.00	83.37
15058	OD2	ASP	C	367	-47.190	-15.901	-7.718	1.00	82.87
15059	C	ASP	C	367	-45.579	-12.312	-5.479	1.00	81.38
15060	O	ASP	C	367	-44.378	-12.034	-5.507	1.00	81.42
15061	N	CYS	C	368	-46.292	-12.472	-4.377	1.00	80.38
15062	CA	CYS	C	368	-45.807	-12.363	-3.024	1.00	79.24
15063	CB	CYS	C	368	-47.032	-12.575	-2.134	1.00	79.05
15064	SG	CYS	C	368	-46.742	-13.495	-0.629	1.00	77.56
15065	C	CYS	C	368	-44.721	-13.385	-2.660	1.00	78.87
15066	O	CYS	C	368	-44.689	-14.494	-3.196	1.00	78.67
15067	N	THR	C	369	-43.835	-13.000	-1.745	1.00	78.25
15068	CA	THR	C	369	-42.818	-13.914	-1.221	1.00	77.82
15069	CB	THR	C	369	-41.409	-13.544	-1.732	1.00	77.94
15070	OG1	THR	C	369	-40.422	-14.081	-0.842	1.00	77.58
15071	CG2	THR	C	369	-41.180	-12.037	-1.653	1.00	78.12
15072	C	THR	C	369	-42.863	-13.925	0.310	1.00	77.36
15073	O	THR	C	369	-42.684	-12.883	0.953	1.00	77.28
15074	N	PHE	C	370	-43.109	-15.100	0.887	1.00	76.69
15075	CA	PHE	C	370	-43.253	-15.235	2.338	1.00	76.14
15076	CB	PHE	C	370	-43.971	-16.542	2.675	1.00	76.21
15077	CG	PHE	C	370	-45.367	-16.628	2.130	1.00	76.75
15078	CD1	PHE	C	370	-46.356	-15.777	2.593	1.00	76.78
15079	CE1	PHE	C	370	-47.642	-15.858	2.100	1.00	77.24
15080	CZ	PHE	C	370	-47.957	-16.789	1.129	1.00	77.79
15081	CE2	PHE	C	370	-46.984	-17.652	0.660	1.00	77.95
15082	CD2	PHE	C	370	-45.694	-17.568	1.161	1.00	77.40
15083	C	PHE	C	370	-41.930	-15.178	3.100	1.00	75.59
15084	O	PHE	C	370	-41.067	-16.023	2.905	1.00	75.56
15085	N	ILE	C	371	-41.781	-14.197	3.987	1.00	75.00
15086	CA	ILE	C	371	-40.553	-14.074	4.774	1.00	74.48

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FIGURE 3 KL

A	B	C	D	E	F	G	H	I	J
15087	CB	ILE	C	371	-40.224	-12.604	5.080	1.00	74.45
15088	CG1	ILE	C	371	-41.075	-12.081	6.237	1.00	74.44
15089	CD1	ILE	C	371	-40.671	-10.690	6.691	1.00	73.38
15090	CG2	ILE	C	371	-40.398	-11.753	3.840	1.00	74.48
15091	C	ILE	C	371	-40.547	-14.910	6.062	1.00	74.18
15092	O	ILE	C	371	-39.534	-14.971	6.765	1.00	74.17
15093	N	THR	C	372	-41.679	-15.541	6.368	1.00	73.78
15094	CA	THR	C	372	-41.783	-16.474	7.491	1.00	73.26
15095	CB	THR	C	372	-42.432	-15.824	8.737	1.00	73.15
15096	OG1	THR	C	372	-43.538	-15.007	8.343	1.00	73.10
15097	CG2	THR	C	372	-41.487	-14.838	9.395	1.00	72.71
15098	C	THR	C	372	-42.599	-17.682	7.046	1.00	73.15
15099	O	THR	C	372	-43.320	-17.617	6.048	1.00	73.30
15100	N	LYS	C	373	-42.484	-18.783	7.780	1.00	72.86
15101	CA	LYS	C	373	-43.240	-19.997	7.470	1.00	72.65
15102	CB	LYS	C	373	-42.706	-20.661	6.196	1.00	72.82
15103	CG	LYS	C	373	-42.761	-22.185	6.182	1.00	73.44
15104	CD	LYS	C	373	-41.522	-22.784	6.853	1.00	74.34
15105	CE	LYS	C	373	-41.593	-24.304	6.916	1.00	74.49
15106	NZ	LYS	C	373	-40.471	-24.867	7.718	1.00	74.69
15107	C	LYS	C	373	-43.227	-20.958	8.655	1.00	72.30
15108	O	LYS	C	373	-42.544	-20.710	9.651	1.00	72.41
15109	N	GLY	C	374	-43.992	-22.041	8.560	1.00	71.83
15110	CA	GLY	C	374	-44.054	-23.018	9.634	1.00	71.28
15111	C	GLY	C	374	-45.459	-23.178	10.180	1.00	70.87
15112	O	GLY	C	374	-46.300	-22.297	10.010	1.00	70.98
15113	N	THR	C	375	-45.716	-24.297	10.850	1.00	70.35
15114	CA	THR	C	375	-47.050	-24.575	11.379	1.00	69.61
15115	CB	THR	C	375	-47.231	-26.072	11.641	1.00	69.71
15116	OG1	THR	C	375	-46.343	-26.482	12.688	1.00	70.00
15117	CG2	THR	C	375	-46.773	-26.879	10.431	1.00	69.74
15118	C	THR	C	375	-47.392	-23.773	12.633	1.00	69.01
15119	O	THR	C	375	-47.752	-24.331	13.673	1.00	68.90
15120	N	TRP	C	376	-47.248	-22.459	12.516	1.00	68.03
15121	CA	TRP	C	376	-47.659	-21.514	13.541	1.00	67.27
15122	CB	TRP	C	376	-46.492	-21.080	14.432	1.00	67.25
15123	CG	TRP	C	376	-45.221	-20.789	13.707	1.00	67.49
15124	CD1	TRP	C	376	-44.318	-21.700	13.240	1.00	67.72
15125	NE1	TRP	C	376	-43.264	-21.055	12.639	1.00	67.99
15126	CE2	TRP	C	376	-43.468	-19.704	12.713	1.00	67.87
15127	CD2	TRP	C	376	-44.689	-19.500	13.386	1.00	67.80
15128	CE3	TRP	C	376	-45.123	-18.188	13.596	1.00	68.37
15129	CZ3	TRP	C	376	-44.338	-17.143	13.137	1.00	69.05
15130	CH2	TRP	C	376	-43.129	-17.381	12.475	1.00	68.72
15131	CZ2	TRP	C	376	-42.680	-18.652	12.251	1.00	68.56
15132	C	TRP	C	376	-48.247	-20.340	12.772	1.00	66.68
15133	O	TRP	C	376	-48.629	-20.503	11.614	1.00	66.63
15134	N	GLU	C	377	-48.329	-19.165	13.385	1.00	65.79
15135	CA	GLU	C	377	-48.887	-18.012	12.678	1.00	64.99
15136	CB	GLU	C	377	-50.419	-18.010	12.746	1.00	64.86
15137	CG	GLU	C	377	-51.109	-18.870	11.705	1.00	64.15

**REPLACEMENT SHEET**  
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**FIGURE 3 KM**

A	B	C	D	E	F	G	H	I	J
15138	CD	GLU	C	377	-52.598	-18.594	11.611	1.00	63.47
15139	OE1	GLU	C	377	-53.272	-19.248	10.792	1.00	62.60
15140	OE2	GLU	C	377	-53.094	-17.719	12.351	1.00	63.07
15141	C	GLU	C	377	-48.381	-16.689	13.209	1.00	64.51
15142	O	GLU	C	377	-48.070	-16.556	14.388	1.00	64.50
15143	N	VAL	C	378	-48.299	-15.709	12.321	1.00	64.08
15144	CA	VAL	C	378	-47.929	-14.365	12.710	1.00	63.89
15145	CB	VAL	C	378	-47.246	-13.617	11.563	1.00	63.89
15146	CG1	VAL	C	378	-46.862	-12.223	12.004	1.00	64.19
15147	CG2	VAL	C	378	-46.029	-14.377	11.089	1.00	64.23
15148	C	VAL	C	378	-49.215	-13.640	13.083	1.00	63.81
15149	O	VAL	C	378	-50.144	-13.555	12.279	1.00	63.51
15150	N	ILE	C	379	-49.281	-13.137	14.307	1.00	63.71
15151	CA	ILE	C	379	-50.478	-12.447	14.751	1.00	63.80
15152	CB	ILE	C	379	-50.504	-12.332	16.275	1.00	63.89
15153	CG1	ILE	C	379	-50.146	-13.676	16.922	1.00	63.72
15154	CD1	ILE	C	379	-51.032	-14.813	16.502	1.00	63.32
15155	CG2	ILE	C	379	-51.863	-11.835	16.732	1.00	63.72
15156	C	ILE	C	379	-50.597	-11.068	14.113	1.00	63.94
15157	O	ILE	C	379	-51.646	-10.711	13.578	1.00	63.80
15158	N	GLY	C	380	-49.517	-10.296	14.160	1.00	64.02
15159	CA	GLY	C	380	-49.534	-8.968	13.578	1.00	64.29
15160	C	GLY	C	380	-48.179	-8.302	13.415	1.00	64.54
15161	O	GLY	C	380	-47.232	-8.570	14.162	1.00	64.54
15162	N	ILE	C	381	-48.089	-7.429	12.421	1.00	64.57
15163	CA	ILE	C	381	-46.873	-6.676	12.192	1.00	64.84
15164	CB	ILE	C	381	-46.717	-6.344	10.707	1.00	64.72
15165	CG1	ILE	C	381	-46.552	-7.631	9.899	1.00	64.80
15166	CD1	ILE	C	381	-46.571	-7.435	8.394	1.00	64.65
15167	CG2	ILE	C	381	-45.519	-5.436	10.498	1.00	64.95
15168	C	ILE	C	381	-46.907	-5.421	13.059	1.00	65.21
15169	O	ILE	C	381	-47.781	-4.563	12.907	1.00	65.15
15170	N	GLU	C	382	-45.956	-5.329	13.979	1.00	65.60
15171	CA	GLU	C	382	-45.921	-4.231	14.935	1.00	66.17
15172	CB	GLU	C	382	-45.389	-4.731	16.278	1.00	66.09
15173	CG	GLU	C	382	-46.177	-5.902	16.839	1.00	65.95
15174	CD	GLU	C	382	-47.639	-5.561	17.052	1.00	65.14
15175	OE1	GLU	C	382	-48.503	-6.320	16.566	1.00	65.03
15176	OE2	GLU	C	382	-47.920	-4.529	17.700	1.00	64.58
15177	C	GLU	C	382	-45.093	-3.047	14.464	1.00	66.69
15178	O	GLU	C	382	-45.406	-1.896	14.773	1.00	66.74
15179	N	ALA	C	383	-44.029	-3.327	13.726	1.00	67.53
15180	CA	ALA	C	383	-43.170	-2.266	13.233	1.00	68.34
15181	CB	ALA	C	383	-42.480	-1.559	14.388	1.00	68.30
15182	C	ALA	C	383	-42.145	-2.820	12.270	1.00	69.06
15183	O	ALA	C	383	-41.887	-4.025	12.243	1.00	68.99
15184	N	LEU	C	384	-41.574	-1.931	11.466	1.00	70.07
15185	CA	LEU	C	384	-40.537	-2.322	10.529	1.00	71.18
15186	CB	LEU	C	384	-41.134	-2.985	9.283	1.00	71.08
15187	CG	LEU	C	384	-41.598	-2.215	8.050	1.00	70.73
15188	CD1	LEU	C	384	-42.255	-0.893	8.410	1.00	71.00

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**FIGURE 3 KN**

A	B	C	D	E	F	G	H	I	J
15189	CD2	LEU	C	384	-40.432	-2.013	7.115	1.00	70.62
15190	C	LEU	C	384	-39.638	-1.147	10.175	1.00	72.11
15191	O	LEU	C	384	-40.065	0.013	10.174	1.00	72.11
15192	N	THR	C	385	-38.375	-1.459	9.908	1.00	73.22
15193	CA	THR	C	385	-37.399	-0.450	9.537	1.00	74.09
15194	CB	THR	C	385	-36.324	-0.313	10.622	1.00	74.18
15195	OG1	THR	C	385	-35.765	-1.604	10.900	1.00	74.54
15196	CG2	THR	C	385	-36.942	0.105	11.952	1.00	74.19
15197	C	THR	C	385	-36.739	-0.886	8.250	1.00	74.71
15198	O	THR	C	385	-37.142	-1.878	7.633	1.00	74.71
15199	N	SER	C	386	-35.714	-0.141	7.852	1.00	75.39
15200	CA	SER	C	386	-34.951	-0.481	6.666	1.00	75.74
15201	CB	SER	C	386	-33.885	0.581	6.409	1.00	75.89
15202	OG	SER	C	386	-33.049	0.745	7.543	1.00	76.23
15203	C	SER	C	386	-34.299	-1.844	6.871	1.00	75.84
15204	O	SER	C	386	-34.289	-2.679	5.965	1.00	75.99
15205	N	ASP	C	387	-33.787	-2.070	8.080	1.00	75.87
15206	CA	ASP	C	387	-33.075	-3.304	8.412	1.00	75.91
15207	CB	ASP	C	387	-31.965	-3.012	9.423	1.00	75.99
15208	CG	ASP	C	387	-30.943	-2.022	8.902	1.00	76.35
15209	OD1	ASP	C	387	-30.150	-2.397	8.007	1.00	76.07
15210	OD2	ASP	C	387	-30.858	-0.851	9.335	1.00	76.17
15211	C	ASP	C	387	-33.956	-4.409	8.986	1.00	75.86
15212	O	ASP	C	387	-33.943	-5.543	8.504	1.00	75.84
15213	N	TYR	C	388	-34.710	-4.071	10.028	1.00	75.74
15214	CA	TYR	C	388	-35.521	-5.052	10.742	1.00	75.46
15215	CB	TYR	C	388	-35.201	-4.996	12.238	1.00	75.65
15216	CG	TYR	C	388	-33.825	-5.486	12.616	1.00	76.32
15217	CD1	TYR	C	388	-32.846	-4.601	13.056	1.00	76.99
15218	CE1	TYR	C	388	-31.584	-5.046	13.417	1.00	77.33
15219	CZ	TYR	C	388	-31.291	-6.394	13.340	1.00	77.96
15220	OH	TYR	C	388	-30.037	-6.857	13.690	1.00	77.89
15221	CE2	TYR	C	388	-32.254	-7.289	12.909	1.00	77.82
15222	CD2	TYR	C	388	-33.508	-6.834	12.550	1.00	76.98
15223	C	TYR	C	388	-37.026	-4.869	10.578	1.00	74.96
15224	O	TYR	C	388	-37.511	-3.766	10.309	1.00	75.20
15225	N	LEU	C	389	-37.750	-5.972	10.746	1.00	74.08
15226	CA	LEU	C	389	-39.207	-5.977	10.767	1.00	73.25
15227	CB	LEU	C	389	-39.778	-6.765	9.582	1.00	73.17
15228	CG	LEU	C	389	-41.282	-7.089	9.609	1.00	73.03
15229	CD1	LEU	C	389	-42.102	-5.935	9.072	1.00	73.08
15230	CD2	LEU	C	389	-41.589	-8.335	8.808	1.00	72.28
15231	C	LEU	C	389	-39.594	-6.648	12.082	1.00	72.63
15232	O	LEU	C	389	-39.166	-7.765	12.362	1.00	72.66
15233	N	TYR	C	390	-40.388	-5.971	12.898	1.00	71.77
15234	CA	TYR	C	390	-40.778	-6.532	14.181	1.00	71.08
15235	CB	TYR	C	390	-40.611	-5.495	15.283	1.00	71.26
15236	CG	TYR	C	390	-39.202	-4.979	15.456	1.00	71.69
15237	CD1	TYR	C	390	-38.352	-5.537	16.399	1.00	72.61
15238	CE1	TYR	C	390	-37.063	-5.063	16.574	1.00	73.10
15239	CZ	TYR	C	390	-36.610	-4.017	15.802	1.00	73.31



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**FIGURE 3 KO**

A	B	C	D	E	F	G	H	I	J
15240	OH	TYR	C	390	-35.328	-3.552	15.981	1.00	74.22
15241	CE2	TYR	C	390	-37.437	-3.442	14.857	1.00	72.86
15242	CD2	TYR	C	390	-38.726	-3.922	14.692	1.00	72.23
15243	C	TYR	C	390	-42.222	-7.014	14.153	1.00	70.54
15244	O	TYR	C	390	-43.129	-6.248	13.827	1.00	70.53
15245	N	TYR	C	391	-42.433	-8.280	14.505	1.00	69.72
15246	CA	TYR	C	391	-43.770	-8.862	14.511	1.00	68.92
15247	CB	TYR	C	391	-43.988	-9.684	13.244	1.00	68.70
15248	CG	TYR	C	391	-43.251	-11.002	13.247	1.00	68.25
15249	CD1	TYR	C	391	-43.823	-12.136	13.805	1.00	67.77
15250	CE1	TYR	C	391	-43.157	-13.340	13.813	1.00	67.68
15251	CZ	TYR	C	391	-41.894	-13.430	13.256	1.00	68.06
15252	OH	TYR	C	391	-41.228	-14.637	13.262	1.00	67.59
15253	CE2	TYR	C	391	-41.301	-12.318	12.693	1.00	67.91
15254	CD2	TYR	C	391	-41.982	-11.111	12.694	1.00	68.53
15255	C	TYR	C	391	-44.015	-9.749	15.733	1.00	68.50
15256	O	TYR	C	391	-43.085	-10.115	16.442	1.00	68.48
15257	N	ILE	C	392	-45.280	-10.090	15.971	1.00	67.95
15258	CA	ILE	C	392	-45.644	-10.989	17.060	1.00	67.42
15259	CB	ILE	C	392	-46.625	-10.305	18.021	1.00	67.47
15260	CG1	ILE	C	392	-45.847	-9.569	19.109	1.00	67.27
15261	CD1	ILE	C	392	-46.609	-8.451	19.751	1.00	67.55
15262	CG2	ILE	C	392	-47.575	-11.322	18.647	1.00	67.28
15263	C	ILE	C	392	-46.238	-12.254	16.462	1.00	67.12
15264	O	ILE	C	392	-46.812	-12.214	15.379	1.00	67.16
15265	N	SER	C	393	-46.082	-13.379	17.147	1.00	66.70
15266	CA	SER	C	393	-46.593	-14.640	16.626	1.00	66.57
15267	CB	SER	C	393	-45.690	-15.151	15.503	1.00	66.66
15268	OG	SER	C	393	-44.423	-15.548	16.003	1.00	67.01
15269	C	SER	C	393	-46.703	-15.696	17.717	1.00	66.31
15270	O	SER	C	393	-46.386	-15.438	18.871	1.00	66.19
15271	N	ASN	C	394	-47.155	-16.888	17.348	1.00	66.35
15272	CA	ASN	C	394	-47.292	-17.972	18.319	1.00	66.39
15273	CB	ASN	C	394	-48.750	-18.444	18.407	1.00	66.16
15274	CG	ASN	C	394	-49.319	-18.846	17.066	1.00	65.56
15275	OD1	ASN	C	394	-48.593	-18.981	16.086	1.00	65.23
15276	ND2	ASN	C	394	-50.629	-19.040	17.016	1.00	65.22
15277	C	ASN	C	394	-46.356	-19.157	18.052	1.00	66.50
15278	O	ASN	C	394	-46.687	-20.300	18.368	1.00	66.51
15279	N	GLU	C	395	-45.185	-18.875	17.482	1.00	66.64
15280	CA	GLU	C	395	-44.230	-19.924	17.142	1.00	66.67
15281	CB	GLU	C	395	-43.072	-19.370	16.307	1.00	66.82
15282	CG	GLU	C	395	-42.122	-20.459	15.822	1.00	67.70
15283	CD	GLU	C	395	-40.949	-19.930	15.020	1.00	68.12
15284	OE1	GLU	C	395	-40.322	-20.728	14.288	1.00	68.71
15285	OE2	GLU	C	395	-40.651	-18.723	15.121	1.00	68.27
15286	C	GLU	C	395	-43.671	-20.641	18.362	1.00	66.42
15287	O	GLU	C	395	-43.648	-21.873	18.412	1.00	66.27
15288	N	TYR	C	396	-43.225	-19.866	19.342	1.00	66.28
15289	CA	TYR	C	396	-42.606	-20.436	20.531	1.00	66.48
15290	CB	TYR	C	396	-42.505	-19.408	21.659	1.00	66.75

**REPLACEMENT SHEET**  
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**FIGURE 3 KP**

A	B	C	D	E	F	G	H	I	J
15291	CG	TYR	C	396	-41.531	-19.826	22.736	1.00	67.82
15292	CD1	TYR	C	396	-41.874	-19.764	24.081	1.00	68.27
15293	CE1	TYR	C	396	-40.981	-20.158	25.063	1.00	69.27
15294	CZ	TYR	C	396	-39.731	-20.626	24.704	1.00	69.93
15295	OH	TYR	C	396	-38.833	-21.021	25.674	1.00	70.35
15296	CE2	TYR	C	396	-39.372	-20.701	23.373	1.00	69.62
15297	CD2	TYR	C	396	-40.269	-20.305	22.401	1.00	68.57
15298	C	TYR	C	396	-43.299	-21.704	21.019	1.00	66.20
15299	O	TYR	C	396	-44.528	-21.795	21.038	1.00	66.42
15300	N	LYS	C	397	-42.488	-22.691	21.384	1.00	65.75
15301	CA	LYS	C	397	-42.971	-23.970	21.900	1.00	65.28
15302	CB	LYS	C	397	-43.252	-23.873	23.400	1.00	65.42
15303	CG	LYS	C	397	-42.018	-23.960	24.289	1.00	65.46
15304	CD	LYS	C	397	-42.305	-23.373	25.669	1.00	66.31
15305	CE	LYS	C	397	-41.350	-23.920	26.725	1.00	66.99
15306	NZ	LYS	C	397	-39.955	-24.025	26.215	1.00	67.31
15307	C	LYS	C	397	-44.204	-24.501	21.186	1.00	64.87
15308	O	LYS	C	397	-44.865	-25.410	21.688	1.00	64.77
15309	N	GLY	C	398	-44.513	-23.939	20.021	1.00	64.29
15310	CA	GLY	C	398	-45.661	-24.389	19.254	1.00	63.76
15311	C	GLY	C	398	-46.945	-24.313	20.057	1.00	63.30
15312	O	GLY	C	398	-47.739	-25.256	20.076	1.00	63.47
15313	N	MET	C	399	-47.133	-23.188	20.738	1.00	62.72
15314	CA	MET	C	399	-48.319	-22.965	21.547	1.00	61.97
15315	CB	MET	C	399	-47.931	-22.537	22.963	1.00	61.89
15316	CG	MET	C	399	-46.667	-23.173	23.498	1.00	62.45
15317	SD	MET	C	399	-46.535	-23.090	25.306	1.00	62.64
15318	CE	MET	C	399	-47.375	-24.588	25.754	1.00	62.36
15319	C	MET	C	399	-49.156	-21.867	20.902	1.00	61.45
15320	O	MET	C	399	-48.801	-20.691	20.967	1.00	61.30
15321	N	PRO	C	400	-50.255	-22.252	20.266	1.00	60.94
15322	CA	PRO	C	400	-51.156	-21.294	19.612	1.00	60.42
15323	CB	PRO	C	400	-52.332	-22.169	19.192	1.00	60.57
15324	CG	PRO	C	400	-51.728	-23.522	19.009	1.00	60.79
15325	CD	PRO	C	400	-50.699	-23.644	20.094	1.00	60.71
15326	C	PRO	C	400	-51.633	-20.192	20.552	1.00	60.01
15327	O	PRO	C	400	-51.817	-19.057	20.123	1.00	59.89
15328	N	GLY	C	401	-51.821	-20.524	21.825	1.00	59.54
15329	CA	GLY	C	401	-52.283	-19.561	22.806	1.00	58.92
15330	C	GLY	C	401	-51.167	-18.736	23.410	1.00	58.69
15331	O	GLY	C	401	-51.384	-17.964	24.340	1.00	58.61
15332	N	GLY	C	402	-49.960	-18.906	22.889	1.00	58.52
15333	CA	GLY	C	402	-48.831	-18.135	23.358	1.00	58.25
15334	C	GLY	C	402	-48.493	-17.041	22.373	1.00	58.21
15335	O	GLY	C	402	-48.727	-17.185	21.175	1.00	57.66
15336	N	ARG	C	403	-47.940	-15.947	22.885	1.00	58.56
15337	CA	ARG	C	403	-47.571	-14.794	22.068	1.00	59.11
15338	CB	ARG	C	403	-48.529	-13.631	22.334	1.00	59.24
15339	CG	ARG	C	403	-49.540	-13.330	21.236	1.00	59.55
15340	CD	ARG	C	403	-50.288	-14.530	20.729	1.00	59.11
15341	NE	ARG	C	403	-51.619	-14.189	20.246	1.00	58.74

**REPLACEMENT SHEET**  
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**FIGURE 3 KQ**

A	B	C	D	E	F	G	H	I	J
15342	CZ	ARG	C	403	-52.564	-15.090	20.013	1.00	59.71
15343	NH1	ARG	C	403	-53.761	-14.713	19.577	1.00	60.37
15344	NH2	ARG	C	403	-52.311	-16.379	20.214	1.00	59.35
15345	C	ARG	C	403	-46.163	-14.328	22.396	1.00	59.34
15346	O	ARG	C	403	-45.799	-14.214	23.557	1.00	59.25
15347	N	ASN	C	404	-45.373	-14.048	21.370	1.00	60.20
15348	CA	ASN	C	404	-44.026	-13.535	21.571	1.00	60.98
15349	CB	ASN	C	404	-43.009	-14.672	21.692	1.00	60.61
15350	CG	ASN	C	404	-42.957	-15.252	23.081	1.00	59.51
15351	OD1	ASN	C	404	-43.361	-16.392	23.302	1.00	58.86
15352	ND2	ASN	C	404	-42.473	-14.465	24.034	1.00	56.75
15353	C	ASN	C	404	-43.604	-12.578	20.477	1.00	61.92
15354	O	ASN	C	404	-44.037	-12.692	19.330	1.00	62.03
15355	N	LEU	C	405	-42.751	-11.634	20.850	1.00	63.31
15356	CA	LEU	C	405	-42.228	-10.646	19.921	1.00	64.62
15357	CB	LEU	C	405	-41.855	-9.375	20.678	1.00	64.50
15358	CG	LEU	C	405	-41.271	-8.234	19.852	1.00	64.07
15359	CD1	LEU	C	405	-42.203	-7.902	18.707	1.00	64.27
15360	CD2	LEU	C	405	-41.044	-7.020	20.725	1.00	63.89
15361	C	LEU	C	405	-41.003	-11.188	19.186	1.00	65.74
15362	O	LEU	C	405	-40.084	-11.726	19.799	1.00	65.57
15363	N	TYR	C	406	-40.996	-11.044	17.867	1.00	67.23
15364	CA	TYR	C	406	-39.878	-11.515	17.066	1.00	68.66
15365	CB	TYR	C	406	-40.300	-12.700	16.199	1.00	68.64
15366	CG	TYR	C	406	-40.543	-13.966	16.981	1.00	69.15
15367	CD1	TYR	C	406	-39.603	-14.985	16.994	1.00	69.73
15368	CE1	TYR	C	406	-39.816	-16.145	17.707	1.00	69.38
15369	CZ	TYR	C	406	-40.977	-16.299	18.424	1.00	69.23
15370	OH	TYR	C	406	-41.180	-17.457	19.137	1.00	70.18
15371	CE2	TYR	C	406	-41.927	-15.304	18.432	1.00	69.38
15372	CD2	TYR	C	406	-41.707	-14.142	17.713	1.00	69.55
15373	C	TYR	C	406	-39.323	-10.405	16.189	1.00	69.60
15374	O	TYR	C	406	-40.053	-9.504	15.776	1.00	69.80
15375	N	LYS	C	407	-38.024	-10.479	15.916	1.00	70.75
15376	CA	LYS	C	407	-37.349	-9.527	15.040	1.00	71.87
15377	CB	LYS	C	407	-36.271	-8.765	15.816	1.00	71.82
15378	CG	LYS	C	407	-35.043	-8.425	15.001	1.00	72.36
15379	CD	LYS	C	407	-33.811	-8.216	15.882	1.00	73.33
15380	CE	LYS	C	407	-33.870	-6.892	16.648	1.00	73.70
15381	NZ	LYS	C	407	-32.523	-6.458	17.135	1.00	72.93
15382	C	LYS	C	407	-36.730	-10.275	13.859	1.00	72.57
15383	O	LYS	C	407	-35.918	-11.184	14.049	1.00	72.66
15384	N	ILE	C	408	-37.134	-9.920	12.642	1.00	73.55
15385	CA	ILE	C	408	-36.574	-10.569	11.457	1.00	74.61
15386	CB	ILE	C	408	-37.675	-11.197	10.573	1.00	74.55
15387	CG1	ILE	C	408	-37.061	-11.771	9.292	1.00	74.57
15388	CD1	ILE	C	408	-37.993	-12.675	8.518	1.00	74.07
15389	CG2	ILE	C	408	-38.743	-10.177	10.235	1.00	74.38
15390	C	ILE	C	408	-35.690	-9.619	10.650	1.00	75.36
15391	O	ILE	C	408	-36.025	-8.444	10.458	1.00	75.35
15392	N	GLN	C	409	-34.550	-10.134	10.195	1.00	76.31

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FIGURE 3 KR

A	B	C	D	E	F	G	H	I	J
15393	CA	GLN	C	409	-33.606	-9.332	9.429	1.00	77.25
15394	CB	GLN	C	409	-32.189	-9.896	9.536	1.00	77.43
15395	CG	GLN	C	409	-31.403	-9.345	10.712	1.00	78.15
15396	CD	GLN	C	409	-29.901	-9.363	10.486	1.00	79.40
15397	OE1	GLN	C	409	-29.187	-10.134	11.130	1.00	79.63
15398	NE2	GLN	C	409	-29.416	-8.511	9.578	1.00	79.37
15399	C	GLN	C	409	-34.006	-9.209	7.971	1.00	77.64
15400	O	GLN	C	409	-33.949	-10.183	7.217	1.00	77.63
15401	N	LEU	C	410	-34.408	-8.004	7.579	1.00	78.26
15402	CA	LEU	C	410	-34.802	-7.746	6.199	1.00	78.91
15403	CB	LEU	C	410	-35.204	-6.283	6.024	1.00	78.97
15404	CG	LEU	C	410	-36.688	-5.972	6.239	1.00	79.51
15405	CD1	LEU	C	410	-37.403	-7.109	6.947	1.00	79.61
15406	CD2	LEU	C	410	-36.862	-4.665	6.994	1.00	80.14
15407	C	LEU	C	410	-33.657	-8.103	5.261	1.00	79.27
15408	O	LEU	C	410	-33.875	-8.460	4.100	1.00	79.38
15409	N	SER	C	411	-32.436	-8.010	5.781	1.00	79.62
15410	CA	SER	C	411	-31.244	-8.354	5.024	1.00	79.96
15411	CB	SER	C	411	-29.989	-7.847	5.741	1.00	80.09
15412	OG	SER	C	411	-29.988	-8.221	7.110	1.00	80.33
15413	C	SER	C	411	-31.179	-9.862	4.828	1.00	80.08
15414	O	SER	C	411	-30.775	-10.346	3.773	1.00	80.06
15415	N	ASP	C	412	-31.573	-10.603	5.857	1.00	80.29
15416	CA	ASP	C	412	-31.625	-12.057	5.755	1.00	80.44
15417	CB	ASP	C	412	-30.365	-12.717	6.306	1.00	80.22
15418	CG	ASP	C	412	-30.399	-14.225	6.157	1.00	80.04
15419	OD1	ASP	C	412	-30.016	-14.927	7.110	1.00	80.13
15420	OD2	ASP	C	412	-30.811	-14.800	5.126	1.00	79.50
15421	C	ASP	C	412	-32.857	-12.602	6.463	1.00	80.53
15422	O	ASP	C	412	-32.962	-12.544	7.691	1.00	80.55
15423	N	TYR	C	413	-33.778	-13.144	5.674	1.00	80.65
15424	CA	TYR	C	413	-35.044	-13.647	6.194	1.00	80.70
15425	CB	TYR	C	413	-35.984	-14.005	5.042	1.00	80.44
15426	CG	TYR	C	413	-36.379	-12.802	4.215	1.00	79.98
15427	CD1	TYR	C	413	-36.263	-11.517	4.729	1.00	79.54
15428	CE1	TYR	C	413	-36.619	-10.410	3.981	1.00	79.47
15429	C2	TYR	C	413	-37.099	-10.576	2.698	1.00	79.40
15430	OH	TYR	C	413	-37.452	-9.468	1.957	1.00	79.09
15431	CE2	TYR	C	413	-37.223	-11.845	2.162	1.00	79.68
15432	CD2	TYR	C	413	-36.864	-12.947	2.921	1.00	79.74
15433	C	TYR	C	413	-34.894	-14.810	7.177	1.00	80.94
15434	O	TYR	C	413	-35.840	-15.149	7.889	1.00	80.92
15435	N	THR	C	414	-33.704	-15.406	7.227	1.00	81.10
15436	CA	THR	C	414	-33.453	-16.504	8.157	1.00	81.25
15437	CB	THR	C	414	-32.565	-17.590	7.518	1.00	81.48
15438	OG1	THR	C	414	-31.803	-17.025	6.439	1.00	81.83
15439	CG2	THR	C	414	-33.431	-18.634	6.821	1.00	81.92
15440	C	THR	C	414	-32.851	-16.016	9.469	1.00	81.06
15441	O	THR	C	414	-32.724	-16.777	10.423	1.00	81.18
15442	N	LYS	C	415	-32.486	-14.741	9.515	1.00	80.87
15443	CA	LYS	C	415	-31.943	-14.154	10.733	1.00	80.89

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**FIGURE 3 KS**

A	B	C	D	E	F	G	H	I	J
15444	CB	LYS	C	415	-30.975	-13.014	10.404	1.00	81.12
15445	CG	LYS	C	415	-29.561	-13.471	10.050	1.00	81.84
15446	CD	LYS	C	415	-28.767	-12.345	9.387	1.00	82.89
15447	CE	LYS	C	415	-27.362	-12.798	8.990	1.00	83.68
15448	NZ	LYS	C	415	-26.719	-11.844	8.034	1.00	83.60
15449	C	LYS	C	415	-33.077	-13.663	11.632	1.00	80.55
15450	O	LYS	C	415	-33.450	-12.486	11.603	1.00	80.52
15451	N	VAL	C	416	-33.612	-14.574	12.442	1.00	80.08
15452	CA	VAL	C	416	-34.762	-14.268	13.284	1.00	79.53
15453	CB	VAL	C	416	-35.938	-15.185	12.937	1.00	79.55
15454	CG1	VAL	C	416	-37.215	-14.650	13.551	1.00	79.50
15455	CG2	VAL	C	416	-36.074	-15.318	11.424	1.00	79.34
15456	C	VAL	C	416	-34.495	-14.380	14.783	1.00	79.19
15457	O	VAL	C	416	-34.178	-15.455	15.294	1.00	79.08
15458	N	THR	C	417	-34.651	-13.262	15.483	1.00	78.72
15459	CA	THR	C	417	-34.447	-13.218	16.926	1.00	78.33
15460	CB	THR	C	417	-33.597	-11.975	17.298	1.00	78.39
15461	OG1	THR	C	417	-32.352	-12.003	16.587	1.00	78.51
15462	CG2	THR	C	417	-33.171	-12.022	18.760	1.00	78.40
15463	C	THR	C	417	-35.785	-13.144	17.657	1.00	77.84
15464	O	THR	C	417	-36.691	-12.438	17.214	1.00	77.89
15465	N	CYS	C	418	-35.918	-13.882	18.760	1.00	77.08
15466	CA	CYS	C	418	-37.108	-13.774	19.604	1.00	76.44
15467	CB	CYS	C	418	-37.616	-15.138	20.090	1.00	76.39
15468	SG	CYS	C	418	-39.136	-14.966	21.077	1.00	75.10
15469	C	CYS	C	418	-36.766	-12.909	20.809	1.00	76.30
15470	O	CYS	C	418	-36.133	-13.371	21.758	1.00	76.29
15471	N	LEU	C	419	-37.191	-11.656	20.791	1.00	75.89
15472	CA	LEU	C	419	-36.823	-10.766	21.879	1.00	75.66
15473	CB	LEU	C	419	-36.706	-9.322	21.388	1.00	75.74
15474	CG	LEU	C	419	-37.311	-8.998	20.022	1.00	75.92
15475	CD1	LEU	C	419	-37.369	-7.485	19.819	1.00	75.85
15476	CD2	LEU	C	419	-36.510	-9.663	18.916	1.00	75.49
15477	C	LEU	C	419	-37.710	-10.840	23.113	1.00	75.43
15478	O	LEU	C	419	-37.682	-9.932	23.940	1.00	75.59
15479	N	SER	C	420	-38.468	-11.922	23.267	1.00	75.00
15480	CA	SER	C	420	-39.344	-12.032	24.435	1.00	74.63
15481	CB	SER	C	420	-40.748	-11.494	24.115	1.00	74.69
15482	OG	SER	C	420	-41.363	-12.236	23.073	1.00	74.18
15483	C	SER	C	420	-39.437	-13.424	25.056	1.00	74.41
15484	O	SER	C	420	-39.605	-13.550	26.268	1.00	74.04
15485	N	CYS	C	421	-39.319	-14.459	24.229	1.00	74.36
15486	CA	CYS	C	421	-39.451	-15.845	24.691	1.00	74.56
15487	CB	CYS	C	421	-39.029	-16.843	23.601	1.00	74.55
15488	SG	CYS	C	421	-39.795	-16.675	21.974	1.00	75.47
15489	C	CYS	C	421	-38.677	-16.178	25.973	1.00	74.43
15490	O	CYS	C	421	-39.193	-16.900	26.837	1.00	74.45
15491	N	GLU	C	422	-37.459	-15.658	26.100	1.00	74.20
15492	CA	GLU	C	422	-36.601	-16.038	27.223	1.00	73.99
15493	CB	GLU	C	422	-35.238	-16.521	26.706	1.00	74.21
15494	CG	GLU	C	422	-35.018	-18.026	26.809	1.00	75.59

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**FIGURE 3 KT**

A	B	C	D	E	F	G	H	I	J
15495	CD	GLU	C	422	-35.460	-18.796	25.575	1.00	77.17
15496	OE1	GLU	C	422	-35.065	-18.406	24.455	1.00	77.82
15497	OE2	GLU	C	422	-36.185	-19.806	25.728	1.00	78.01
15498	C	GLU	C	422	-36.395	-15.021	28.345	1.00	73.45
15499	C	GLU	C	422	-35.564	-15.235	29.228	1.00	73.43
15500	N	LEU	C	423	-37.140	-13.922	28.329	1.00	72.79
15501	CA	LEU	C	423	-36.977	-12.903	29.363	1.00	72.14
15502	CB	LEU	C	423	-37.689	-11.611	28.963	1.00	72.15
15503	CG	LEU	C	423	-37.469	-11.097	27.539	1.00	72.52
15504	CD1	LEU	C	423	-38.348	-9.879	27.276	1.00	72.06
15505	CD2	LEU	C	423	-36.000	-10.769	27.297	1.00	72.84
15506	C	LEU	C	423	-37.516	-13.381	30.708	1.00	71.58
15507	O	LEU	C	423	-37.027	-12.987	31.769	1.00	71.53
15508	N	ASN	C	424	-38.535	-14.227	30.638	1.00	70.83
15509	CA	ASN	C	424	-39.222	-14.756	31.804	1.00	70.18
15510	CB	ASN	C	424	-40.111	-13.680	32.435	1.00	70.20
15511	CG	ASN	C	424	-39.465	-13.000	33.636	1.00	70.68
15512	OD1	ASN	C	424	-39.510	-13.518	34.755	1.00	70.96
15513	ND2	ASN	C	424	-38.882	-11.825	33.414	1.00	70.15
15514	C	ASN	C	424	-40.096	-15.898	31.319	1.00	69.55
15515	O	ASN	C	424	-41.312	-15.856	31.464	1.00	69.47
15516	N	PRO	C	425	-39.475	-16.906	30.719	1.00	68.95
15517	CA	PRO	C	425	-40.203	-18.033	30.125	1.00	68.32
15518	CB	PRO	C	425	-39.083	-19.008	29.749	1.00	68.30
15519	CG	PRO	C	425	-37.914	-18.540	30.568	1.00	68.97
15520	CD	PRO	C	425	-38.021	-17.048	30.548	1.00	68.93
15521	C	PRO	C	425	-41.197	-18.699	31.068	1.00	67.68
15522	O	PRO	C	425	-42.075	-19.419	30.590	1.00	67.66
15523	N	GLU	C	426	-41.067	-18.483	32.374	1.00	66.88
15524	CA	GLU	C	426	-42.016	-19.071	33.317	1.00	66.13
15525	CB	GLU	C	426	-41.349	-19.432	34.647	1.00	66.25
15526	CG	GLU	C	426	-41.287	-20.931	34.915	1.00	66.77
15527	CD	GLU	C	426	-40.397	-21.685	33.936	1.00	67.43
15528	OE1	GLU	C	426	-40.744	-22.833	33.574	1.00	67.25
15529	OE2	GLU	C	426	-39.344	-21.141	33.538	1.00	67.61
15530	C	GLU	C	426	-43.256	-18.206	33.550	1.00	65.45
15531	O	GLU	C	426	-44.382	-18.709	33.516	1.00	65.35
15532	N	ARG	C	427	-43.060	-16.909	33.767	1.00	64.39
15533	CA	ARG	C	427	-44.195	-16.040	34.035	1.00	63.52
15534	CB	ARG	C	427	-43.862	-15.025	35.134	1.00	63.40
15535	CG	ARG	C	427	-43.537	-13.633	34.636	1.00	62.75
15536	CD	ARG	C	427	-44.289	-12.525	35.377	1.00	62.46
15537	NE	ARG	C	427	-43.531	-11.960	36.487	1.00	62.08
15538	CZ	ARG	C	427	-43.906	-10.893	37.183	1.00	62.69
15539	NH1	ARG	C	427	-43.146	-10.443	38.178	1.00	62.97
15540	NH2	ARG	C	427	-45.040	-10.271	36.887	1.00	61.77
15541	C	ARG	C	427	-44.741	-15.331	32.792	1.00	63.08
15542	O	ARG	C	427	-45.852	-14.803	32.818	1.00	62.99
15543	N	CYS	C	428	-43.985	-15.344	31.699	1.00	62.40
15544	CA	CYS	C	428	-44.394	-14.605	30.505	1.00	61.91
15545	CB	CYS	C	428	-43.562	-13.330	30.381	1.00	61.92

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**FIGURE 3 KU**

A	B	C	D	E	F	G	H	I	J
15546	SG	CYS	C	428	-43.944	-12.035	31.581	1.00	62.74
15547	C	CYS	C	428	-44.307	-15.357	29.183	1.00	61.46
15548	O	CYS	C	428	-43.222	-15.555	28.658	1.00	61.37
15549	N	GLN	C	429	-45.451	-15.752	28.632	1.00	61.12
15550	CA	GLN	C	429	-45.469	-16.369	27.306	1.00	60.67
15551	CB	GLN	C	429	-45.514	-17.898	27.382	1.00	60.76
15552	CG	GLN	C	429	-46.496	-18.460	28.367	1.00	61.52
15553	CD	GLN	C	429	-46.191	-19.899	28.709	1.00	63.25
15554	OE1	GLN	C	429	-47.054	-20.772	28.599	1.00	64.26
15555	NE2	GLN	C	429	-44.959	-20.155	29.122	1.00	63.65
15556	C	GLN	C	429	-46.594	-15.800	26.430	1.00	60.28
15557	O	GLN	C	429	-47.020	-16.423	25.457	1.00	60.09
15558	N	TYR	C	430	-47.061	-14.608	26.793	1.00	59.73
15559	CA	TYR	C	430	-48.094	-13.903	26.042	1.00	59.11
15560	CB	TYR	C	430	-49.463	-14.121	26.675	1.00	58.89
15561	CG	TYR	C	430	-50.613	-13.846	25.738	1.00	57.34
15562	CD1	TYR	C	430	-51.038	-12.543	25.497	1.00	55.45
15563	CE1	TYR	C	430	-52.096	-12.284	24.638	1.00	54.59
15564	CZ	TYR	C	430	-52.742	-13.332	24.011	1.00	54.07
15565	OH	TYR	C	430	-53.790	-13.067	23.157	1.00	52.94
15566	CE2	TYR	C	430	-52.335	-14.637	24.232	1.00	54.36
15567	CD2	TYR	C	430	-51.275	-14.886	25.091	1.00	56.11
15568	C	TYR	C	430	-47.754	-12.422	26.035	1.00	59.11
15569	O	TYR	C	430	-48.080	-11.695	26.974	1.00	58.98
15570	N	TYR	C	431	-47.112	-11.981	24.961	1.00	59.30
15571	CA	TYR	C	431	-46.578	-10.623	24.879	1.00	59.63
15572	CB	TYR	C	431	-45.076	-10.671	24.531	1.00	59.24
15573	CG	TYR	C	431	-44.149	-10.882	25.720	1.00	58.79
15574	CD1	TYR	C	431	-43.723	-9.805	26.492	1.00	58.19
15575	CE1	TYR	C	431	-42.888	-9.986	27.579	1.00	57.16
15576	CZ	TYR	C	431	-42.461	-11.250	27.907	1.00	56.79
15577	OH	TYR	C	431	-41.625	-11.415	28.994	1.00	56.52
15578	CE2	TYR	C	431	-42.868	-12.340	27.156	1.00	56.46
15579	CD2	TYR	C	431	-43.704	-12.152	26.071	1.00	57.27
15580	C	TYR	C	431	-47.280	-9.706	23.881	1.00	60.12
15581	O	TYR	C	431	-47.754	-10.150	22.833	1.00	59.87
15582	N	SER	C	432	-47.336	-8.424	24.234	1.00	60.66
15583	CA	SER	C	432	-47.800	-7.371	23.338	1.00	61.67
15584	CB	SER	C	432	-49.197	-6.866	23.714	1.00	61.67
15585	OG	SER	C	432	-49.153	-5.919	24.767	1.00	61.26
15586	C	SER	C	432	-46.759	-6.249	23.428	1.00	62.43
15587	O	SER	C	432	-46.048	-6.134	24.438	1.00	62.68
15588	N	VAL	C	433	-46.667	-5.421	22.394	1.00	63.14
15589	CA	VAL	C	433	-45.611	-4.414	22.345	1.00	63.65
15590	CB	VAL	C	433	-44.420	-4.916	21.500	1.00	63.64
15591	CG1	VAL	C	433	-44.830	-5.065	20.041	1.00	62.88
15592	CG2	VAL	C	433	-43.248	-3.975	21.617	1.00	63.51
15593	C	VAL	C	433	-46.038	-3.071	21.778	1.00	64.30
15594	O	VAL	C	433	-46.864	-2.989	20.864	1.00	64.16
15595	N	SER	C	434	-45.438	-2.021	22.323	1.00	65.16
15596	CA	SER	C	434	-45.701	-0.658	21.897	1.00	66.07

**REPLACEMENT SHEET**  
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**FIGURE 3 KV**

A	B	C	D	E	F	G	H	I	J
15597	CB	SER	C	434	-46.480	0.088	22.986	1.00	65.84
15598	OG	SER	C	434	-46.523	1.483	22.745	1.00	65.86
15599	C	SER	C	434	-44.370	0.032	21.631	1.00	66.81
15600	O	SER	C	434	-43.549	0.178	22.538	1.00	67.02
15601	N	PHE	C	435	-44.151	0.445	20.386	1.00	67.72
15602	CA	PHE	C	435	-42.912	1.130	20.020	1.00	68.43
15603	CB	PHE	C	435	-42.485	0.763	18.601	1.00	68.25
15604	CG	PHE	C	435	-42.050	-0.662	18.443	1.00	67.79
15605	CD1	PHE	C	435	-42.975	-1.657	18.183	1.00	66.96
15606	CE1	PHE	C	435	-42.573	-2.968	18.028	1.00	66.98
15607	CZ	PHE	C	435	-41.238	-3.297	18.125	1.00	66.90
15608	CE2	PHE	C	435	-40.306	-2.319	18.374	1.00	66.90
15609	CD2	PHE	C	435	-40.712	-1.005	18.532	1.00	67.60
15610	C	PHE	C	435	-43.039	2.644	20.117	1.00	69.13
15611	O	PHE	C	435	-44.137	3.183	20.253	1.00	68.97
15612	N	SER	C	436	-41.896	3.318	20.048	1.00	70.15
15613	CA	SER	C	436	-41.842	4.772	20.053	1.00	71.10
15614	CB	SER	C	436	-40.538	5.252	20.686	1.00	71.07
15615	OG	SER	C	436	-39.414	4.665	20.047	1.00	71.13
15616	C	SER	C	436	-41.935	5.240	18.605	1.00	71.89
15617	O	SER	C	436	-41.803	4.431	17.688	1.00	71.91
15618	N	LYS	C	437	-42.148	6.539	18.401	1.00	72.83
15619	CA	LYS	C	437	-42.320	7.101	17.057	1.00	73.87
15620	CB	LYS	C	437	-42.066	8.611	17.051	1.00	73.91
15621	CG	LYS	C	437	-43.330	9.472	16.895	1.00	74.68
15622	CD	LYS	C	437	-44.300	9.337	18.071	1.00	75.43
15623	CE	LYS	C	437	-45.331	8.225	17.854	1.00	76.20
15624	NZ	LYS	C	437	-46.410	8.606	16.898	1.00	76.22
15625	C	LYS	C	437	-41.532	6.423	15.930	1.00	74.48
15626	O	LYS	C	437	-42.113	6.054	14.907	1.00	74.53
15627	N	GLU	C	438	-40.222	6.264	16.107	1.00	75.26
15628	CA	GLU	C	438	-39.393	5.674	15.051	1.00	76.16
15629	CB	GLU	C	438	-38.279	6.641	14.624	1.00	76.38
15630	CG	GLU	C	438	-38.111	6.795	13.117	1.00	77.93
15631	CD	GLU	C	438	-38.580	8.152	12.618	1.00	79.88
15632	OE1	GLU	C	438	-39.345	8.827	13.346	1.00	80.51
15633	OE2	GLU	C	438	-38.170	8.552	11.503	1.00	80.50
15634	C	GLU	C	438	-38.792	4.309	15.411	1.00	76.21
15635	O	GLU	C	438	-37.980	3.768	14.656	1.00	76.39
15636	N	ALA	C	439	-39.163	3.776	16.570	1.00	76.32
15637	CA	ALA	C	439	-38.745	2.428	16.968	1.00	76.52
15638	CB	ALA	C	439	-38.634	1.520	15.740	1.00	76.33
15639	C	ALA	C	439	-37.481	2.305	17.833	1.00	76.63
15640	O	ALA	C	439	-37.087	1.194	18.186	1.00	76.76
15641	N	LYS	C	440	-36.848	3.420	18.180	1.00	76.64
15642	CA	LYS	C	440	-35.648	3.350	19.017	1.00	76.67
15643	CB	LYS	C	440	-35.168	4.746	19.423	1.00	76.79
15644	CG	LYS	C	440	-34.297	5.447	18.384	1.00	77.61
15645	CD	LYS	C	440	-33.503	6.584	19.027	1.00	78.97
15646	CE	LYS	C	440	-32.505	7.221	18.049	1.00	79.50
15647	NZ	LYS	C	440	-33.162	8.106	17.037	1.00	78.84



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**FIGURE 3 KW**

A	B	C	D	E	F	G	H	I	J
15648	C	LYS	C	440	-35.870	2.487	20.262	1.00	76.42
15649	O	LYS	C	440	-34.972	1.768	20.703	1.00	76.42
15650	N	TYR	C	441	-37.072	2.560	20.822	1.00	76.10
15651	CA	TYR	C	441	-37.405	1.784	22.007	1.00	75.67
15652	CB	TYR	C	441	-37.616	2.699	23.210	1.00	75.88
15653	CG	TYR	C	441	-36.514	3.703	23.465	1.00	76.85
15654	CD1	TYR	C	441	-36.457	4.895	22.757	1.00	77.32
15655	CE1	TYR	C	441	-35.460	5.824	22.999	1.00	78.17
15656	CZ	TYR	C	441	-34.508	5.574	23.969	1.00	78.56
15657	OH	TYR	C	441	-33.516	6.498	24.214	1.00	78.85
15658	CE2	TYR	C	441	-34.546	4.401	24.694	1.00	78.20
15659	CD2	TYR	C	441	-35.550	3.475	24.441	1.00	78.08
15660	C	TYR	C	441	-38.675	0.979	21.786	1.00	75.10
15661	O	TYR	C	441	-39.273	1.031	20.710	1.00	75.17
15662	N	TYR	C	442	-39.078	0.239	22.816	1.00	74.20
15663	CA	TYR	C	442	-40.307	-0.549	22.780	1.00	73.30
15664	CB	TYR	C	442	-40.235	-1.673	21.735	1.00	73.19
15665	CG	TYR	C	442	-39.195	-2.740	21.994	1.00	73.21
15666	CD1	TYR	C	442	-37.919	-2.644	21.448	1.00	73.11
15667	CE1	TYR	C	442	-36.967	-3.624	21.677	1.00	72.43
15668	CZ	TYR	C	442	-37.289	-4.721	22.452	1.00	72.27
15669	OH	TYR	C	442	-36.352	-5.700	22.686	1.00	71.61
15670	CE2	TYR	C	442	-38.550	-4.842	22.997	1.00	72.28
15671	CD2	TYR	C	442	-39.494	-3.859	22.763	1.00	72.75
15672	C	TYR	C	442	-40.649	-1.102	24.159	1.00	72.68
15673	O	TYR	C	442	-39.770	-1.547	24.893	1.00	72.50
15674	N	GLN	C	443	-41.929	-1.048	24.515	1.00	71.97
15675	CA	GLN	C	443	-42.377	-1.569	25.801	1.00	71.05
15676	CB	GLN	C	443	-43.354	-0.612	26.496	1.00	71.05
15677	CG	GLN	C	443	-44.812	-0.793	26.104	1.00	71.02
15678	CD	GLN	C	443	-45.784	-0.282	27.161	1.00	70.77
15679	OE1	GLN	C	443	-45.447	-0.204	28.341	1.00	70.62
15680	NE2	GLN	C	443	-46.994	0.051	26.738	1.00	71.00
15681	C	GLN	C	443	-43.015	-2.930	25.598	1.00	70.47
15682	O	GLN	C	443	-43.828	-3.125	24.703	1.00	70.56
15683	N	LEU	C	444	-42.612	-3.890	26.411	1.00	69.79
15684	CA	LEU	C	444	-43.178	-5.213	26.315	1.00	68.88
15685	CB	LEU	C	444	-42.095	-6.271	26.453	1.00	68.90
15686	CG	LEU	C	444	-41.491	-6.683	25.119	1.00	69.17
15687	CD1	LEU	C	444	-42.600	-7.053	24.141	1.00	69.11
15688	CD2	LEU	C	444	-40.524	-7.838	25.312	1.00	69.33
15689	C	LEU	C	444	-44.214	-5.376	27.399	1.00	68.42
15690	O	LEU	C	444	-44.084	-4.823	28.489	1.00	68.41
15691	N	ARG	C	445	-45.258	-6.124	27.089	1.00	67.87
15692	CA	ARG	C	445	-46.306	-6.379	28.054	1.00	67.18
15693	CB	ARG	C	445	-47.481	-5.440	27.816	1.00	67.37
15694	CG	ARG	C	445	-48.838	-6.033	28.162	1.00	68.00
15695	CD	ARG	C	445	-49.992	-5.085	27.891	1.00	68.96
15696	NE	ARG	C	445	-51.213	-5.778	27.495	1.00	69.80
15697	CZ	ARG	C	445	-52.236	-5.186	26.893	1.00	70.42
15698	NH1	ARG	C	445	-53.311	-5.890	26.566	1.00	71.22

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**FIGURE 3 KX**

A	B	C	D	E	F	G	H	I	J
15699	NH2	ARG	C	445	-52.186	-3.887	26.617	1.00	70.18
15700	C	ARG	C	445	-46.749	-7.810	27.905	1.00	66.40
15701	O	ARG	C	445	-47.305	-8.182	26.878	1.00	66.41
15702	N	CYS	C	446	-46.458	-8.630	28.906	1.00	65.62
15703	CA	CYS	C	446	-46.937	-10.002	28.883	1.00	64.89
15704	CB	CYS	C	446	-45.875	-10.995	29.358	1.00	64.87
15705	SG	CYS	C	446	-45.775	-11.242	31.141	1.00	64.37
15706	C	CYS	C	446	-48.173	-10.040	29.764	1.00	64.31
15707	O	CYS	C	446	-48.257	-9.318	30.759	1.00	64.14
15708	N	SER	C	447	-49.133	-10.874	29.394	1.00	63.60
15709	CA	SER	C	447	-50.404	-10.907	30.101	1.00	62.98
15710	CB	SER	C	447	-51.554	-10.828	29.096	1.00	62.83
15711	OG	SER	C	447	-51.335	-9.777	28.172	1.00	62.79
15712	C	SER	C	447	-50.557	-12.146	30.954	1.00	62.53
15713	O	SER	C	447	-51.598	-12.349	31.572	1.00	62.13
15714	N	GLY	C	448	-49.516	-12.971	30.986	1.00	62.30
15715	CA	GLY	C	448	-49.543	-14.203	31.753	1.00	62.09
15716	C	GLY	C	448	-48.497	-15.176	31.252	1.00	62.13
15717	O	GLY	C	448	-47.730	-14.849	30.345	1.00	62.20
15718	N	PRO	C	449	-48.485	-16.389	31.798	1.00	62.06
15719	CA	PRO	C	449	-49.471	-16.837	32.792	1.00	61.94
15720	CB	PRO	C	449	-49.279	-18.354	32.816	1.00	61.99
15721	CG	PRO	C	449	-47.884	-18.576	32.356	1.00	62.06
15722	CD	PRO	C	449	-47.495	-17.429	31.480	1.00	61.96
15723	C	PRO	C	449	-49.269	-16.287	34.191	1.00	61.82
15724	O	PRO	C	449	-50.119	-16.515	35.047	1.00	61.98
15725	N	GLY	C	450	-48.169	-15.587	34.429	1.00	61.77
15726	CA	GLY	C	450	-47.941	-14.994	35.728	1.00	61.81
15727	C	GLY	C	450	-48.527	-13.603	35.696	1.00	62.02
15728	O	GLY	C	450	-49.132	-13.208	34.701	1.00	62.11
15729	N	LEU	C	451	-48.361	-12.853	36.776	1.00	62.12
15730	CA	LEU	C	451	-48.865	-11.495	36.807	1.00	62.43
15731	CB	LEU	C	451	-48.475	-10.814	38.111	1.00	62.43
15732	CG	LEU	C	451	-49.483	-11.010	39.237	1.00	62.12
15733	CD1	LEU	C	451	-50.198	-12.339	39.086	1.00	61.65
15734	CD2	LEU	C	451	-48.799	-10.894	40.595	1.00	62.13
15735	C	LEU	C	451	-48.287	-10.744	35.622	1.00	62.97
15736	O	LEU	C	451	-47.156	-11.006	35.216	1.00	63.03
15737	N	PRO	C	452	-49.062	-9.829	35.050	1.00	63.39
15738	CA	PRO	C	452	-48.603	-9.061	33.894	1.00	63.77
15739	CB	PRO	C	452	-49.781	-8.138	33.597	1.00	63.68
15740	CG	PRO	C	452	-50.941	-8.821	34.201	1.00	63.81
15741	CD	PRO	C	452	-50.423	-9.453	35.457	1.00	63.48
15742	C	PRO	C	452	-47.373	-8.255	34.269	1.00	64.20
15743	O	PRO	C	452	-47.258	-7.794	35.405	1.00	64.11
15744	N	LEU	C	453	-46.463	-8.105	33.317	1.00	64.70
15745	CA	LEU	C	453	-45.218	-7.400	33.545	1.00	65.40
15746	CB	LEU	C	453	-44.075	-8.404	33.714	1.00	65.43
15747	CG	LEU	C	453	-42.643	-8.059	33.305	1.00	65.83
15748	CD1	LEU	C	453	-42.512	-7.958	31.783	1.00	66.51
15749	CD2	LEU	C	453	-41.709	-9.131	33.827	1.00	66.40

**REPLACEMENT SHEET**  
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**FIGURE 3 KY**

A	B	C	D	E	F	G	H	I	J
15750	C	LEU	C	453	-44.947	-6.429	32.409	1.00	65.83
15751	O	LEU	C	453	-45.025	-6.778	31.231	1.00	65.92
15752	N	TYR	C	454	-44.629	-5.200	32.775	1.00	66.42
15753	CA	TYR	C	454	-44.380	-4.169	31.796	1.00	67.31
15754	CB	TYR	C	454	-45.315	-2.997	32.064	1.00	67.28
15755	CG	TYR	C	454	-46.767	-3.315	31.791	1.00	67.79
15756	CD1	TYR	C	454	-47.348	-2.994	30.569	1.00	67.78
15757	CE1	TYR	C	454	-48.672	-3.278	30.309	1.00	68.12
15758	CZ	TYR	C	454	-49.438	-3.901	31.272	1.00	68.30
15759	OH	TYR	C	454	-50.760	-4.182	31.007	1.00	67.89
15760	CE2	TYR	C	454	-48.885	-4.237	32.493	1.00	68.45
15761	CD2	TYR	C	454	-47.556	-3.942	32.747	1.00	68.05
15762	C	TYR	C	454	-42.920	-3.730	31.839	1.00	67.94
15763	O	TYR	C	454	-42.432	-3.270	32.869	1.00	68.23
15764	N	THR	C	455	-42.224	-3.881	30.715	1.00	68.86
15765	CA	THR	C	455	-40.806	-3.535	30.625	1.00	69.72
15766	CB	THR	C	455	-39.944	-4.807	30.654	1.00	69.58
15767	OG1	THR	C	455	-40.429	-5.742	29.680	1.00	69.76
15768	CG2	THR	C	455	-40.113	-5.545	31.972	1.00	69.53
15769	C	THR	C	455	-40.489	-2.763	29.353	1.00	70.50
15770	O	THR	C	455	-40.896	-3.161	28.265	1.00	70.60
15771	N	LEU	C	456	-39.751	-1.667	29.494	1.00	71.35
15772	CA	LEU	C	456	-39.348	-0.865	28.347	1.00	72.19
15773	CB	LEU	C	456	-39.356	0.618	28.705	1.00	72.26
15774	CG	LEU	C	456	-39.810	1.623	27.644	1.00	72.39
15775	CD1	LEU	C	456	-39.333	3.017	28.027	1.00	73.23
15776	CD2	LEU	C	456	-39.311	1.258	26.263	1.00	72.51
15777	C	LEU	C	456	-37.943	-1.268	27.931	1.00	72.89
15778	O	LEU	C	456	-37.017	-1.235	28.743	1.00	72.93
15779	N	HIS	C	457	-37.795	-1.652	26.667	1.00	73.68
15780	CA	HIS	C	457	-36.510	-2.063	26.121	1.00	74.39
15781	CB	HIS	C	457	-36.627	-3.454	25.503	1.00	74.53
15782	CG	HIS	C	457	-37.266	-4.468	26.400	1.00	75.22
15783	ND1	HIS	C	457	-36.673	-5.677	26.697	1.00	75.59
15784	CE1	HIS	C	457	-37.460	-6.366	27.504	1.00	75.51
15785	NE2	HIS	C	457	-38.546	-5.650	27.736	1.00	75.75
15786	CD2	HIS	C	457	-38.451	-4.460	27.056	1.00	75.56
15787	C	HIS	C	457	-36.039	-1.082	25.050	1.00	74.92
15788	O	HIS	C	457	-36.765	-0.161	24.683	1.00	74.94
15789	N	SER	C	458	-34.818	-1.288	24.556	1.00	75.63
15790	CA	SER	C	458	-34.252	-0.470	23.482	1.00	76.21
15791	CB	SER	C	458	-32.946	0.179	23.927	1.00	76.35
15792	OG	SER	C	458	-31.836	-0.522	23.385	1.00	76.31
15793	C	SER	C	458	-33.969	-1.353	22.277	1.00	76.66
15794	O	SER	C	458	-33.361	-2.410	22.415	1.00	76.64
15795	N	SER	C	459	-34.384	-0.906	21.094	1.00	77.37
15796	CA	SER	C	459	-34.227	-1.704	19.880	1.00	78.06
15797	CB	SER	C	459	-35.029	-1.100	18.723	1.00	78.08
15798	OG	SER	C	459	-34.251	-0.175	17.978	1.00	78.13
15799	C	SER	C	459	-32.772	-1.899	19.455	1.00	78.51
15800	O	SER	C	459	-32.366	-3.009	19.113	1.00	78.48

**REPLACEMENT SHEET**  
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**FIGURE 3 KZ**

A	B	C	D	E	F	G	H	I	J
15801	N	VAL	C	460	-31.998	-0.819	19.478	1.00	79.13
15802	CA	VAL	C	460	-30.602	-0.858	19.040	1.00	79.90
15803	CB	VAL	C	460	-29.736	0.163	19.792	1.00	79.91
15804	CG1	VAL	C	460	-28.318	0.173	19.222	1.00	80.28
15805	CG2	VAL	C	460	-30.360	1.548	19.718	1.00	80.14
15806	C	VAL	C	460	-29.963	-2.238	19.166	1.00	80.28
15807	O	VAL	C	460	-29.514	-2.810	18.176	1.00	80.25
15808	N	ASN	C	461	-29.925	-2.769	20.383	1.00	80.95
15809	CA	ASN	C	461	-29.330	-4.082	20.619	1.00	81.65
15810	CB	ASN	C	461	-28.024	-3.933	21.393	1.00	81.78
15811	CG	ASN	C	461	-28.135	-2.928	22.517	1.00	82.56
15812	OD1	ASN	C	461	-27.865	-1.738	22.333	1.00	83.29
15813	ND2	ASN	C	461	-28.544	-3.399	23.693	1.00	83.11
15814	C	ASN	C	461	-30.259	-5.050	21.353	1.00	81.83
15815	O	ASN	C	461	-29.916	-6.220	21.551	1.00	81.87
15816	N	ASP	C	462	-31.431	-4.553	21.750	1.00	81.95
15817	CA	ASP	C	462	-32.423	-5.352	22.472	1.00	81.99
15818	CB	ASP	C	462	-32.740	-6.648	21.728	1.00	82.05
15819	CG	ASP	C	462	-33.324	-6.399	20.367	1.00	82.51
15820	OD1	ASP	C	462	-33.222	-7.298	19.507	1.00	83.46
15821	OD2	ASP	C	462	-33.898	-5.331	20.064	1.00	83.21
15822	C	ASP	C	462	-31.988	-5.676	23.892	1.00	81.95
15823	O	ASP	C	462	-31.728	-6.836	24.226	1.00	81.98
15824	N	LYS	C	463	-31.902	-4.650	24.726	1.00	81.70
15825	CA	LYS	C	463	-31.552	-4.867	26.118	1.00	81.59
15826	CB	LYS	C	463	-30.126	-4.390	26.423	1.00	81.72
15827	CG	LYS	C	463	-29.991	-2.932	26.824	1.00	82.48
15828	CD	LYS	C	463	-30.056	-2.752	28.339	1.00	83.36
15829	CE	LYS	C	463	-29.847	-1.288	28.725	1.00	84.04
15830	NZ	LYS	C	463	-30.056	-1.042	30.183	1.00	84.21
15831	C	LYS	C	463	-32.585	-4.194	27.005	1.00	81.24
15832	O	LYS	C	463	-33.152	-3.157	26.652	1.00	81.27
15833	N	GLY	C	464	-32.840	-4.803	28.152	1.00	80.82
15834	CA	GLY	C	464	-33.824	-4.280	29.072	1.00	80.31
15835	C	GLY	C	464	-33.284	-3.134	29.892	1.00	79.81
15836	O	GLY	C	464	-32.374	-3.321	30.698	1.00	79.89
15837	N	LEU	C	465	-33.841	-1.947	29.676	1.00	79.34
15838	CA	LEU	C	465	-33.459	-0.775	30.444	1.00	78.86
15839	CB	LEU	C	465	-34.036	0.504	29.839	1.00	78.85
15840	CG	LEU	C	465	-34.193	0.662	28.329	1.00	78.87
15841	CD1	LEU	C	465	-34.575	2.102	28.023	1.00	78.99
15842	CD2	LEU	C	465	-32.930	0.278	27.581	1.00	79.34
15843	C	LEU	C	465	-33.998	-0.938	31.854	1.00	78.63
15844	O	LEU	C	465	-33.233	-1.099	32.812	1.00	78.68
15845	N	ARG	C	466	-35.322	-0.901	31.986	1.00	78.11
15846	CA	ARG	C	466	-35.924	-1.029	33.305	1.00	77.56
15847	CB	ARG	C	466	-36.070	0.343	33.963	1.00	77.73
15848	CG	ARG	C	466	-36.849	1.341	33.141	1.00	78.08
15849	CD	ARG	C	466	-36.820	2.753	33.701	1.00	78.74
15850	NE	ARG	C	466	-36.959	3.743	32.637	1.00	79.35
15851	CZ	ARG	C	466	-36.049	3.957	31.696	1.00	79.03

**REPLACEMENT SHEET**  
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**FIGURE 3 LA**

A	B	C	D	E	F	G	H	I	J
15852	NH1	ARG	C	466	-36.264	4.874	30.764	1.00	79.06
15853	NH2	ARG	C	466	-34.922	3.257	31.683	1.00	78.58
15854	C	ARG	C	466	-37.263	-1.734	33.344	1.00	77.07
15855	O	ARG	C	466	-37.818	-2.141	32.322	1.00	77.09
15856	N	VAL	C	467	-37.760	-1.873	34.565	1.00	76.41
15857	CA	VAL	C	467	-39.040	-2.484	34.836	1.00	75.67
15858	CB	VAL	C	467	-38.961	-3.345	36.106	1.00	75.78
15859	CG1	VAL	C	467	-40.344	-3.819	36.532	1.00	75.88
15860	CG2	VAL	C	467	-38.010	-4.527	35.892	1.00	76.01
15861	C	VAL	C	467	-40.032	-1.355	35.054	1.00	75.09
15862	O	VAL	C	467	-39.787	-0.464	35.864	1.00	75.04
15863	N	LEU	C	468	-41.142	-1.382	34.321	1.00	74.19
15864	CA	LEU	C	468	-42.159	-0.344	34.443	1.00	73.37
15865	CB	LEU	C	468	-42.886	-0.161	33.116	1.00	73.36
15866	CG	LEU	C	468	-42.007	0.456	32.037	1.00	73.52
15867	CD1	LEU	C	468	-42.744	0.538	30.717	1.00	73.69
15868	CD2	LEU	C	468	-41.547	1.832	32.497	1.00	74.21
15869	C	LEU	C	468	-43.153	-0.684	35.541	1.00	72.83
15870	O	LEU	C	468	-43.418	0.118	36.435	1.00	72.50
15871	N	GLU	C	469	-43.711	-1.883	35.456	1.00	72.20
15872	CA	GLU	C	469	-44.636	-2.365	36.464	1.00	71.43
15873	CB	GLU	C	469	-46.070	-1.983	36.107	1.00	71.50
15874	CG	GLU	C	469	-47.100	-2.496	37.094	1.00	71.46
15875	CD	GLU	C	469	-46.816	-2.036	38.505	1.00	71.67
15876	OE1	GLU	C	469	-46.582	-2.900	39.375	1.00	71.29
15877	OE2	GLU	C	469	-46.827	-0.809	38.742	1.00	72.31
15878	C	GLU	C	469	-44.481	-3.873	36.546	1.00	70.80
15879	O	GLU	C	469	-44.445	-4.551	35.526	1.00	70.65
15880	N	ASP	C	470	-44.364	-4.398	37.757	1.00	70.21
15881	CA	ASP	C	470	-44.177	-5.830	37.921	1.00	69.68
15882	CB	ASP	C	470	-42.830	-6.124	38.580	1.00	69.85
15883	CG	ASP	C	470	-42.690	-5.476	39.945	1.00	70.85
15884	OD1	ASP	C	470	-41.553	-5.454	40.467	1.00	71.98
15885	OD2	ASP	C	470	-43.650	-4.968	40.573	1.00	71.66
15886	C	ASP	C	470	-45.312	-6.432	38.726	1.00	68.96
15887	O	ASP	C	470	-45.356	-7.641	38.952	1.00	68.81
15888	N	ASN	C	471	-46.223	-5.568	39.159	1.00	68.21
15889	CA	ASN	C	471	-47.381	-5.977	39.942	1.00	67.52
15890	CB	ASN	C	471	-48.323	-6.862	39.118	1.00	67.33
15891	CG	ASN	C	471	-49.373	-6.053	38.364	1.00	66.65
15892	OD1	ASN	C	471	-50.247	-5.433	38.976	1.00	65.67
15893	ND2	ASN	C	471	-49.287	-6.051	37.034	1.00	64.42
15894	C	ASN	C	471	-47.021	-6.643	41.261	1.00	67.42
15895	O	ASN	C	471	-47.802	-7.423	41.806	1.00	67.41
15896	N	SER	C	472	-45.839	-6.325	41.779	1.00	67.15
15897	CA	SER	C	472	-45.422	-6.872	43.059	1.00	66.97
15898	CB	SER	C	472	-44.074	-6.287	43.496	1.00	67.26
15899	OG	SER	C	472	-44.206	-4.939	43.929	1.00	67.21
15900	C	SER	C	472	-46.507	-6.570	44.093	1.00	66.57
15901	O	SER	C	472	-46.830	-7.413	44.930	1.00	66.63
15902	N	ALA	C	473	-47.076	-5.369	44.022	1.00	65.88

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**FIGURE 3 LB**

A	B	C	D	E	F	G	H	I	J
15903	CA	ALA	C	473	-48.153	-4.986	44.929	1.00	65.34
15904	CB	ALA	C	473	-48.726	-3.633	44.537	1.00	65.11
15905	C	ALA	C	473	-49.256	-6.046	44.945	1.00	65.07
15906	O	ALA	C	473	-49.640	-6.545	46.007	1.00	64.90
15907	N	LEU	C	474	-49.754	-6.384	43.758	1.00	64.62
15908	CA	LEU	C	474	-50.807	-7.379	43.619	1.00	64.36
15909	CB	LEU	C	474	-51.247	-7.500	42.160	1.00	64.23
15910	CG	LEU	C	474	-52.333	-8.548	41.927	1.00	64.01
15911	CD1	LEU	C	474	-53.688	-7.987	42.297	1.00	64.03
15912	CD2	LEU	C	474	-52.330	-9.023	40.495	1.00	64.25
15913	C	LEU	C	474	-50.307	-8.725	44.108	1.00	64.22
15914	O	LEU	C	474	-51.001	-9.431	44.843	1.00	64.04
15915	N	ASP	C	475	-49.094	-9.068	43.690	1.00	64.12
15916	CA	ASP	C	475	-48.474	-10.321	44.079	1.00	64.14
15917	CB	ASP	C	475	-47.013	-10.344	43.627	1.00	64.15
15918	CG	ASP	C	475	-46.445	-11.744	43.570	1.00	64.36
15919	OD1	ASP	C	475	-45.977	-12.156	42.483	1.00	63.82
15920	OD2	ASP	C	475	-46.423	-12.504	44.563	1.00	64.34
15921	C	ASP	C	475	-48.565	-10.495	45.590	1.00	64.15
15922	O	ASP	C	475	-48.811	-11.593	46.086	1.00	64.06
15923	N	LYS	C	476	-48.396	-9.393	46.313	1.00	64.14
15924	CA	LYS	C	476	-48.389	-9.428	47.765	1.00	64.39
15925	CB	LYS	C	476	-47.965	-8.075	48.336	1.00	64.59
15926	CG	LYS	C	476	-47.947	-8.027	49.855	1.00	66.02
15927	CD	LYS	C	476	-47.125	-6.847	50.368	1.00	68.48
15928	CE	LYS	C	476	-45.676	-6.905	49.867	1.00	69.19
15929	NZ	LYS	C	476	-44.857	-5.764	50.383	1.00	70.07
15930	C	LYS	C	476	-49.722	-9.847	48.361	1.00	64.23
15931	O	LYS	C	476	-49.774	-10.760	49.186	1.00	63.98
15932	N	MET	C	477	-50.800	-9.182	47.958	1.00	64.16
15933	CA	MET	C	477	-52.107	-9.517	48.516	1.00	63.91
15934	CB	MET	C	477	-53.136	-8.409	48.273	1.00	64.19
15935	CG	MET	C	477	-53.177	-7.856	46.863	1.00	65.27
15936	SD	MET	C	477	-53.849	-6.168	46.854	1.00	66.51
15937	CE	MET	C	477	-54.919	-6.231	48.286	1.00	67.00
15938	C	MET	C	477	-52.610	-10.877	48.047	1.00	63.33
15939	O	MET	C	477	-53.440	-11.492	48.709	1.00	63.47
15940	N	LEU	C	478	-52.079	-11.359	46.930	1.00	62.62
15941	CA	LEU	C	478	-52.457	-12.668	46.419	1.00	62.15
15942	CB	LEU	C	478	-52.065	-12.807	44.947	1.00	62.00
15943	CG	LEU	C	478	-53.148	-12.549	43.894	1.00	61.31
15944	CD1	LEU	C	478	-52.507	-12.236	42.565	1.00	60.38
15945	CD2	LEU	C	478	-54.119	-11.432	44.297	1.00	60.55
15946	C	LEU	C	478	-51.859	-13.806	47.249	1.00	62.27
15947	O	LEU	C	478	-52.221	-14.973	47.074	1.00	62.11
15948	N	GLN	C	479	-50.941	-13.467	48.150	1.00	62.31
15949	CA	GLN	C	479	-50.316	-14.468	49.010	1.00	62.41
15950	CB	GLN	C	479	-49.098	-13.887	49.719	1.00	62.77
15951	CG	GLN	C	479	-47.967	-13.458	48.804	1.00	63.97
15952	CD	GLN	C	479	-47.054	-12.472	49.497	1.00	65.85
15953	OE1	GLN	C	479	-47.482	-11.786	50.429	1.00	66.54

**REPLACEMENT SHEET**  
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**FIGURE 3 LC**

A	B	C	D	E	F	G	H	I	J
15954	NE2	GLN	C	479	-45.795	-12.403	49.061	1.00	66.37
15955	C	GLN	C	479	-51.320	-14.933	50.045	1.00	62.03
15956	O	GLN	C	479	-51.306	-16.084	50.469	1.00	62.09
15957	N	ASN	C	480	-52.184	-14.015	50.459	1.00	61.68
15958	CA	ASN	C	480	-53.247	-14.328	51.397	1.00	61.21
15959	CB	ASN	C	480	-53.958	-13.047	51.833	1.00	61.41
15960	CG	ASN	C	480	-53.719	-12.709	53.288	1.00	62.10
15961	OD1	ASN	C	480	-53.740	-11.536	53.674	1.00	62.88
15962	ND2	ASN	C	480	-53.501	-13.736	54.111	1.00	61.27
15963	C	ASN	C	480	-54.283	-15.271	50.798	1.00	60.56
15964	O	ASN	C	480	-54.806	-16.145	51.482	1.00	60.74
15965	N	VAL	C	481	-54.569	-15.111	49.513	1.00	59.62
15966	CA	VAL	C	481	-55.651	-15.887	48.912	1.00	58.54
15967	CB	VAL	C	481	-56.485	-15.018	47.945	1.00	58.59
15968	CG1	VAL	C	481	-55.593	-14.052	47.191	1.00	58.52
15969	CG2	VAL	C	481	-57.285	-15.887	46.999	1.00	58.15
15970	C	VAL	C	481	-55.289	-17.213	48.234	1.00	57.70
15971	O	VAL	C	481	-54.312	-17.315	47.495	1.00	57.10
15972	N	GLN	C	482	-56.111	-18.221	48.507	1.00	56.94
15973	CA	GLN	C	482	-56.004	-19.522	47.866	1.00	56.22
15974	CB	GLN	C	482	-56.893	-20.542	48.580	1.00	56.27
15975	CG	GLN	C	482	-56.552	-20.768	50.044	1.00	56.54
15976	CD	GLN	C	482	-57.309	-21.947	50.642	1.00	57.87
15977	OE1	GLN	C	482	-56.993	-23.102	50.357	1.00	58.06
15978	NE2	GLN	C	482	-58.308	-21.657	51.472	1.00	58.38
15979	C	GLN	C	482	-56.438	-19.381	46.408	1.00	55.57
15980	O	GLN	C	482	-57.605	-19.551	46.068	1.00	55.85
15981	N	MET	C	483	-55.487	-19.071	45.544	1.00	54.50
15982	CA	MET	C	483	-55.784	-18.836	44.150	1.00	53.23
15983	CB	MET	C	483	-54.779	-17.845	43.570	1.00	53.29
15984	CG	MET	C	483	-54.907	-16.464	44.187	1.00	53.22
15985	SD	MET	C	483	-56.530	-15.752	43.876	1.00	52.60
15986	CE	MET	C	483	-56.296	-15.080	42.219	1.00	53.38
15987	C	MET	C	483	-55.823	-20.101	43.310	1.00	52.57
15988	O	MET	C	483	-55.125	-21.074	43.579	1.00	52.37
15989	N	PRO	C	484	-56.669	-20.074	42.291	1.00	51.80
15990	CA	PRO	C	484	-56.800	-21.187	41.358	1.00	51.37
15991	CB	PRO	C	484	-57.964	-20.735	40.471	1.00	51.37
15992	CG	PRO	C	484	-57.908	-19.250	40.546	1.00	50.94
15993	CD	PRO	C	484	-57.598	-18.972	41.973	1.00	51.64
15994	C	PRO	C	484	-55.533	-21.275	40.525	1.00	51.05
15995	O	PRO	C	484	-54.730	-20.353	40.549	1.00	50.71
15996	N	SER	C	485	-55.346	-22.367	39.801	1.00	51.12
15997	CA	SER	C	485	-54.179	-22.481	38.945	1.00	51.50
15998	CB	SER	C	485	-53.292	-23.659	39.358	1.00	51.29
15999	OG	SER	C	485	-53.758	-24.877	38.803	1.00	51.36
16000	C	SER	C	485	-54.669	-22.643	37.525	1.00	51.92
16001	O	SER	C	485	-55.870	-22.675	37.284	1.00	51.86
16002	N	LYS	C	486	-53.748	-22.766	36.579	1.00	52.76
16003	CA	LYS	C	486	-54.147	-22.853	35.185	1.00	53.23
16004	CB	LYS	C	486	-53.849	-21.528	34.483	1.00	52.93

**REPLACEMENT SHEET**  
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**FIGURE 3 LD**

A	B	C	D	E	F	G	H	I	J
16005	CG	LYS	C	486	-55.017	-20.990	33.676	1.00	53.08
16006	CD	LYS	C	486	-54.749	-20.868	32.183	1.00	50.23
16007	CE	LYS	C	486	-55.425	-19.603	31.673	1.00	47.65
16008	NZ	LYS	C	486	-55.334	-19.383	30.214	1.00	47.00
16009	C	LYS	C	486	-53.442	-23.972	34.457	1.00	53.74
16010	O	LYS	C	486	-52.215	-24.070	34.477	1.00	53.99
16011	N	LYS	C	487	-54.222	-24.826	33.819	1.00	54.39
16012	CA	LYS	C	487	-53.658	-25.861	32.984	1.00	55.08
16013	CB	LYS	C	487	-54.298	-27.215	33.276	1.00	55.38
16014	CG	LYS	C	487	-54.163	-28.228	32.130	1.00	56.35
16015	CD	LYS	C	487	-53.045	-29.243	32.348	1.00	57.73
16016	CE	LYS	C	487	-53.613	-30.628	32.640	1.00	58.57
16017	NZ	LYS	C	487	-52.613	-31.699	32.343	1.00	58.44
16018	C	LYS	C	487	-53.914	-25.465	31.541	1.00	55.57
16019	O	LYS	C	487	-55.055	-25.266	31.133	1.00	55.38
16020	N	LEU	C	488	-52.842	-25.308	30.782	1.00	56.17
16021	CA	LEU	C	488	-52.954	-25.045	29.362	1.00	56.86
16022	CB	LEU	C	488	-52.169	-23.798	28.971	1.00	56.87
16023	CG	LEU	C	488	-52.661	-23.069	27.720	1.00	56.32
16024	CD1	LEU	C	488	-51.490	-22.755	26.814	1.00	54.85
16025	CD2	LEU	C	488	-53.696	-23.886	26.991	1.00	55.36
16026	C	LEU	C	488	-52.338	-26.249	28.697	1.00	57.42
16027	O	LEU	C	488	-51.132	-26.465	28.772	1.00	57.62
16028	N	ASP	C	489	-53.165	-27.057	28.061	1.00	58.31
16029	CA	ASP	C	489	-52.663	-28.255	27.426	1.00	59.02
16030	CB	ASP	C	489	-52.723	-29.427	28.401	1.00	59.14
16031	CG	ASP	C	489	-51.569	-30.384	28.223	1.00	59.63
16032	OD1	ASP	C	489	-50.608	-30.292	29.014	1.00	59.73
16033	OD2	ASP	C	489	-51.529	-31.243	27.314	1.00	60.12
16034	C	ASP	C	489	-53.513	-28.543	26.215	1.00	59.39
16035	O	ASP	C	489	-54.373	-27.752	25.854	1.00	59.48
16036	N	PHE	C	490	-53.278	-29.681	25.585	1.00	60.01
16037	CA	PHE	C	490	-54.052	-30.028	24.413	1.00	60.71
16038	CB	PHE	C	490	-53.238	-29.782	23.139	1.00	60.85
16039	CG	PHE	C	490	-52.154	-30.798	22.909	1.00	61.45
16040	CD1	PHE	C	490	-52.440	-32.010	22.294	1.00	61.76
16041	CE1	PHE	C	490	-51.442	-32.953	22.082	1.00	61.88
16042	C2	PHE	C	490	-50.147	-32.689	22.488	1.00	61.87
16043	CE2	PHE	C	490	-49.850	-31.482	23.106	1.00	62.01
16044	CD2	PHE	C	490	-50.851	-30.546	23.313	1.00	61.78
16045	C	PHE	C	490	-54.474	-31.477	24.466	1.00	60.98
16046	O	PHE	C	490	-53.859	-32.294	25.157	1.00	61.02
16047	N	ILE	C	491	-55.559	-31.769	23.760	1.00	61.36
16048	CA	ILE	C	491	-56.009	-33.128	23.546	1.00	61.73
16049	CB	ILE	C	491	-57.454	-33.356	24.026	1.00	61.89
16050	CG1	ILE	C	491	-58.450	-32.595	23.145	1.00	61.68
16051	CD1	ILE	C	491	-59.860	-33.123	23.241	1.00	61.32
16052	CG2	ILE	C	491	-57.611	-32.989	25.490	1.00	61.93
16053	C	ILE	C	491	-55.945	-33.280	22.042	1.00	62.11
16054	O	ILE	C	491	-55.856	-32.290	21.311	1.00	61.87
16055	N	ILE	C	492	-55.980	-34.514	21.569	1.00	62.65



**REPLACEMENT SHEET**  
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**FIGURE 3 LE**

A	B	C	D	E	F	G	H	I	J
16056	CA	ILE	C	492	-55.924	-34.732	20.141	1.00	63.29
16057	CB	ILE	C	492	-54.531	-35.289	19.712	1.00	63.35
16058	CG1	ILE	C	492	-54.568	-35.859	18.290	1.00	63.18
16059	CD1	ILE	C	492	-55.163	-37.252	18.191	1.00	63.21
16060	CG2	ILE	C	492	-54.045	-36.338	20.688	1.00	64.14
16061	C	ILE	C	492	-57.069	-35.617	19.690	1.00	63.51
16062	O	ILE	C	492	-57.331	-36.664	20.282	1.00	63.49
16063	N	LEU	C	493	-57.776	-35.155	18.665	1.00	63.86
16064	CA	LEU	C	493	-58.839	-35.926	18.044	1.00	64.34
16065	CB	LEU	C	493	-60.210	-35.294	18.293	1.00	64.32
16066	CG	LEU	C	493	-60.434	-34.562	19.613	1.00	64.33
16067	CD1	LEU	C	493	-59.652	-33.272	19.614	1.00	64.78
16068	CD2	LEU	C	493	-61.912	-34.273	19.822	1.00	64.93
16069	C	LEU	C	493	-58.536	-35.939	16.556	1.00	64.54
16070	O	LEU	C	493	-58.189	-34.904	15.978	1.00	64.41
16071	N	ASN	C	494	-58.635	-37.118	15.948	1.00	64.97
16072	CA	ASN	C	494	-58.389	-37.277	14.517	1.00	65.48
16073	CB	ASN	C	494	-59.589	-36.784	13.696	1.00	65.63
16074	CG	ASN	C	494	-60.760	-37.758	13.723	1.00	66.99
16075	OD1	ASN	C	494	-61.556	-37.826	12.775	1.00	68.83
16076	ND2	ASN	C	494	-60.870	-38.520	14.806	1.00	67.19
16077	C	ASN	C	494	-57.116	-36.590	14.036	1.00	65.35
16078	O	ASN	C	494	-57.177	-35.604	13.302	1.00	65.52
16079	N	GLU	C	495	-55.967	-37.100	14.470	1.00	65.25
16080	CA	GLU	C	495	-54.674	-36.585	14.020	1.00	64.93
16081	CB	GLU	C	495	-54.560	-36.705	12.491	1.00	65.49
16082	CG	GLU	C	495	-53.807	-37.941	12.017	1.00	67.35
16083	CD	GLU	C	495	-54.299	-38.479	10.680	1.00	69.98
16084	OE1	GLU	C	495	-55.497	-38.832	10.576	1.00	70.27
16085	OE2	GLU	C	495	-53.481	-38.574	9.733	1.00	71.37
16086	C	GLU	C	495	-54.387	-35.149	14.438	1.00	64.05
16087	O	GLU	C	495	-53.246	-34.695	14.370	1.00	63.96
16088	N	THR	C	496	-55.413	-34.426	14.870	1.00	62.94
16089	CA	THR	C	496	-55.225	-33.013	15.194	1.00	61.53
16090	CB	THR	C	496	-56.283	-32.162	14.478	1.00	61.59
16091	OG1	THR	C	496	-57.185	-33.028	13.778	1.00	61.93
16092	CG2	THR	C	496	-55.650	-31.363	13.367	1.00	61.66
16093	C	THR	C	496	-55.244	-32.708	16.676	1.00	60.16
16094	O	THR	C	496	-56.003	-33.313	17.428	1.00	60.01
16095	N	LYS	C	497	-54.392	-31.784	17.105	1.00	58.57
16096	CA	LYS	C	497	-54.466	-31.359	18.494	1.00	57.26
16097	CB	LYS	C	497	-53.105	-31.245	19.178	1.00	57.60
16098	CG	LYS	C	497	-52.059	-30.444	18.445	1.00	59.58
16099	CD	LYS	C	497	-50.898	-31.345	18.064	1.00	62.33
16100	CE	LYS	C	497	-49.588	-30.719	18.490	1.00	63.93
16101	NZ	LYS	C	497	-49.605	-29.244	18.260	1.00	64.60
16102	C	LYS	C	497	-55.251	-30.075	18.636	1.00	55.50
16103	O	LYS	C	497	-55.053	-29.108	17.910	1.00	55.06
16104	N	PHE	C	498	-56.177	-30.098	19.573	1.00	53.90
16105	CA	PHE	C	498	-56.971	-28.938	19.888	1.00	52.01
16106	CB	PHE	C	498	-58.442	-29.255	19.716	1.00	51.89

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**FIGURE 3 LF**

A	B	C	D	E	F	G	H	I	J
16107	CG	PHE	C	498	-58.820	-29.570	18.303	1.00	51.20
16108	CD1	PHE	C	498	-59.215	-28.558	17.436	1.00	50.32
16109	CE1	PHE	C	498	-59.564	-28.837	16.145	1.00	49.58
16110	CZ	PHE	C	498	-59.519	-30.143	15.689	1.00	50.88
16111	CE2	PHE	C	498	-59.118	-31.164	16.545	1.00	50.61
16112	CD2	PHE	C	498	-58.773	-30.872	17.837	1.00	50.35
16113	C	PHE	C	498	-56.645	-28.589	21.318	1.00	51.06
16114	O	PHE	C	498	-56.639	-29.448	22.199	1.00	50.81
16115	N	TRP	C	499	-56.354	-27.323	21.544	1.00	49.94
16116	CA	TRP	C	499	-55.939	-26.886	22.856	1.00	48.82
16117	CB	TRP	C	499	-55.087	-25.628	22.733	1.00	48.86
16118	CG	TRP	C	499	-53.770	-25.927	22.082	1.00	49.76
16119	CD1	TRP	C	499	-53.523	-26.076	20.746	1.00	49.81
16120	NE1	TRP	C	499	-52.193	-26.358	20.541	1.00	49.80
16121	CE2	TRP	C	499	-51.557	-26.405	21.753	1.00	49.67
16122	CD2	TRP	C	499	-52.521	-26.145	22.745	1.00	49.62
16123	CE3	TRP	C	499	-52.115	-26.130	24.082	1.00	50.04
16124	CZ3	TRP	C	499	-50.790	-26.379	24.378	1.00	50.07
16125	CH2	TRP	C	499	-49.859	-26.638	23.371	1.00	49.52
16126	CZ2	TRP	C	499	-50.220	-26.658	22.055	1.00	49.89
16127	C	TRP	C	499	-57.089	-26.684	23.825	1.00	48.03
16128	O	TRP	C	499	-58.258	-26.631	23.440	1.00	47.76
16129	N	TYR	C	500	-56.743	-26.607	25.101	1.00	46.94
16130	CA	TYR	C	500	-57.738	-26.376	26.120	1.00	46.15
16131	CB	TYR	C	500	-58.486	-27.665	26.459	1.00	46.44
16132	CG	TYR	C	500	-57.762	-28.647	27.355	1.00	47.01
16133	CD1	TYR	C	500	-57.761	-28.486	28.735	1.00	48.06
16134	CE1	TYR	C	500	-57.120	-29.387	29.560	1.00	49.18
16135	CZ	TYR	C	500	-56.482	-30.483	29.012	1.00	50.19
16136	OH	TYR	C	500	-55.851	-31.385	29.846	1.00	51.72
16137	CE2	TYR	C	500	-56.482	-30.677	27.647	1.00	48.35
16138	CD2	TYR	C	500	-57.123	-29.760	26.828	1.00	47.62
16139	C	TYR	C	500	-57.084	-25.789	27.340	1.00	45.05
16140	O	TYR	C	500	-55.877	-25.884	27.518	1.00	45.34
16141	N	GLN	C	501	-57.883	-25.145	28.166	1.00	43.83
16142	CA	GLN	C	501	-57.379	-24.617	29.407	1.00	42.63
16143	CB	GLN	C	501	-57.179	-23.104	29.341	1.00	42.52
16144	CG	GLN	C	501	-58.457	-22.266	29.213	1.00	41.27
16145	CD	GLN	C	501	-58.184	-20.777	29.426	1.00	39.84
16146	OE1	GLN	C	501	-57.168	-20.256	28.953	1.00	40.31
16147	NE2	GLN	C	501	-59.071	-20.101	30.140	1.00	37.77
16148	C	GLN	C	501	-58.362	-24.992	30.491	1.00	42.38
16149	O	GLN	C	501	-59.542	-25.217	30.224	1.00	42.21
16150	N	MET	C	502	-57.862	-25.117	31.708	1.00	41.97
16151	CA	MET	C	502	-58.732	-25.387	32.824	1.00	41.86
16152	CB	MET	C	502	-58.582	-26.827	33.306	1.00	41.95
16153	CG	MET	C	502	-59.272	-27.858	32.442	1.00	41.45
16154	SD	MET	C	502	-59.183	-29.494	33.189	1.00	42.36
16155	CE	MET	C	502	-60.321	-30.356	32.234	1.00	39.76
16156	C	MET	C	502	-58.357	-24.427	33.922	1.00	41.70
16157	O	MET	C	502	-57.186	-24.155	34.118	1.00	41.42

**REPLACEMENT SHEET**  
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**FIGURE 3 LG**

A	B	C	D	E	F	G	H	I	J
16158	N	ILE	C	503	-59.354	-23.856	34.588	1.00	41.92
16159	CA	ILE	C	503	-59.075	-23.054	35.763	1.00	42.01
16160	CB	ILE	C	503	-59.994	-21.826	35.854	1.00	42.23
16161	CG1	ILE	C	503	-59.842	-20.963	34.598	1.00	41.89
16162	CD1	ILE	C	503	-58.508	-20.286	34.511	1.00	42.23
16163	CG2	ILE	C	503	-59.641	-20.979	37.071	1.00	41.21
16164	C	ILE	C	503	-59.308	-24.045	36.887	1.00	42.28
16165	O	ILE	C	503	-60.428	-24.470	37.135	1.00	41.93
16166	N	LEU	C	504	-58.224	-24.470	37.518	1.00	43.06
16167	CA	LEU	C	504	-58.304	-25.502	38.543	1.00	43.54
16168	CB	LEU	C	504	-57.080	-26.414	38.449	1.00	43.91
16169	CG	LEU	C	504	-57.009	-27.263	37.176	1.00	44.82
16170	CD1	LEU	C	504	-55.578	-27.642	36.816	1.00	46.01
16171	CD2	LEU	C	504	-57.869	-28.502	37.314	1.00	45.64
16172	C	LEU	C	504	-58.424	-24.904	39.925	1.00	43.21
16173	O	LEU	C	504	-57.735	-23.959	40.249	1.00	43.43
16174	N	PRO	C	505	-59.333	-25.425	40.731	1.00	43.54
16175	CA	PRO	C	505	-59.478	-24.952	42.112	1.00	44.26
16176	CB	PRO	C	505	-60.571	-25.860	42.676	1.00	44.09
16177	CG	PRO	C	505	-61.320	-26.330	41.467	1.00	43.90
16178	CD	PRO	C	505	-60.299	-26.482	40.392	1.00	43.18
16179	C	PRO	C	505	-58.167	-25.154	42.878	1.00	44.94
16180	O	PRO	C	505	-57.382	-26.049	42.544	1.00	45.02
16181	N	PRO	C	506	-57.916	-24.322	43.876	1.00	45.64
16182	CA	PRO	C	506	-56.703	-24.454	44.689	1.00	46.49
16183	CB	PRO	C	506	-56.956	-23.461	45.832	1.00	46.41
16184	CG	PRO	C	506	-58.453	-23.247	45.787	1.00	45.84
16185	CD	PRO	C	506	-58.762	-23.205	44.329	1.00	45.32
16186	C	PRO	C	506	-56.624	-25.876	45.234	1.00	47.23
16187	O	PRO	C	506	-57.660	-26.522	45.340	1.00	47.08
16188	N	HIS	C	507	-55.425	-26.369	45.540	1.00	48.57
16189	CA	HIS	C	507	-55.282	-27.707	46.120	1.00	49.66
16190	CB	HIS	C	507	-55.917	-27.749	47.509	1.00	49.52
16191	CG	HIS	C	507	-55.425	-26.672	48.420	1.00	50.26
16192	ND1	HIS	C	507	-54.085	-26.392	48.579	1.00	51.83
16193	CE1	HIS	C	507	-53.943	-25.393	49.433	1.00	52.49
16194	NE2	HIS	C	507	-55.145	-25.009	49.827	1.00	52.30
16195	CD2	HIS	C	507	-56.089	-25.793	49.205	1.00	51.46
16196	C	HIS	C	507	-55.918	-28.763	45.243	1.00	50.46
16197	O	HIS	C	507	-56.417	-29.783	45.732	1.00	50.36
16198	N	PHE	C	508	-55.900	-28.505	43.942	1.00	51.48
16199	CA	PHE	C	508	-56.486	-29.414	42.972	1.00	52.60
16200	CB	PHE	C	508	-56.038	-29.044	41.562	1.00	52.56
16201	CG	PHE	C	508	-56.543	-29.978	40.512	1.00	53.20
16202	CD1	PHE	C	508	-57.872	-30.365	40.500	1.00	53.20
16203	CE1	PHE	C	508	-58.347	-31.232	39.547	1.00	52.98
16204	CZ	PHE	C	508	-57.498	-31.727	38.584	1.00	54.15
16205	CE2	PHE	C	508	-56.170	-31.352	38.577	1.00	54.47
16206	CD2	PHE	C	508	-55.693	-30.478	39.543	1.00	54.09
16207	C	PHE	C	508	-56.100	-30.855	43.280	1.00	53.25
16208	O	PHE	C	508	-54.935	-31.218	43.230	1.00	53.57

**REPLACEMENT SHEET**  
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**FIGURE 3 LH**

A	B	C	D	E	F	G	H	I	J
16209	N	ASP	C	509	-57.094	-31.672	43.591	1.00	54.01
16210	CA	ASP	C	509	-56.864	-33.065	43.923	1.00	54.47
16211	CB	ASP	C	509	-57.562	-33.383	45.244	1.00	54.61
16212	CG	ASP	C	509	-57.124	-34.710	45.830	1.00	55.69
16213	OD1	ASP	C	509	-56.496	-35.515	45.096	1.00	56.73
16214	OD2	ASP	C	509	-57.358	-35.026	47.019	1.00	56.78
16215	C	ASP	C	509	-57.446	-33.946	42.834	1.00	54.50
16216	O	ASP	C	509	-58.631	-34.255	42.870	1.00	54.41
16217	N	LYS	C	510	-56.633	-34.377	41.878	1.00	54.71
16218	CA	LYS	C	510	-57.194	-35.163	40.787	1.00	55.19
16219	CB	LYS	C	510	-56.290	-35.182	39.550	1.00	55.52
16220	CG	LYS	C	510	-55.265	-36.277	39.491	1.00	57.13
16221	CD	LYS	C	510	-54.371	-36.077	38.265	1.00	59.98
16222	CE	LYS	C	510	-53.381	-37.232	38.092	1.00	61.73
16223	NZ	LYS	C	510	-52.692	-37.631	39.371	1.00	62.38
16224	C	LYS	C	510	-57.660	-36.551	41.217	1.00	55.14
16225	O	LYS	C	510	-58.029	-37.382	40.385	1.00	55.40
16226	N	SER	C	511	-57.662	-36.790	42.524	1.00	54.73
16227	CA	SER	C	511	-58.232	-38.018	43.054	1.00	54.59
16228	CB	SER	C	511	-57.539	-38.443	44.358	1.00	54.85
16229	OG	SER	C	511	-57.882	-37.597	45.448	1.00	54.26
16230	C	SER	C	511	-59.714	-37.768	43.299	1.00	54.35
16231	O	SER	C	511	-60.493	-38.700	43.493	1.00	55.12
16232	N	LYS	C	512	-60.101	-36.499	43.258	1.00	53.65
16233	CA	LYS	C	512	-61.468	-36.078	43.552	1.00	52.82
16234	CB	LYS	C	512	-61.403	-34.763	44.331	1.00	53.04
16235	CG	LYS	C	512	-62.099	-34.771	45.667	1.00	54.26
16236	CD	LYS	C	512	-62.383	-33.345	46.125	1.00	56.92
16237	CE	LYS	C	512	-63.344	-32.629	45.158	1.00	56.98
16238	NZ	LYS	C	512	-63.916	-31.389	45.767	1.00	57.79
16239	C	LYS	C	512	-62.325	-35.882	42.290	1.00	51.91
16240	O	LYS	C	512	-61.808	-35.821	41.177	1.00	51.79
16241	N	LYS	C	513	-63.640	-35.797	42.457	1.00	50.85
16242	CA	LYS	C	513	-64.516	-35.506	41.321	1.00	50.07
16243	CB	LYS	C	513	-65.636	-36.534	41.193	1.00	50.55
16244	CG	LYS	C	513	-65.517	-37.440	39.973	1.00	51.47
16245	CD	LYS	C	513	-64.311	-38.346	40.038	1.00	52.82
16246	CE	LYS	C	513	-64.352	-39.369	38.912	1.00	55.30
16247	NZ	LYS	C	513	-63.323	-40.430	39.099	1.00	56.62
16248	C	LYS	C	513	-65.106	-34.104	41.440	1.00	49.11
16249	O	LYS	C	513	-65.999	-33.861	42.265	1.00	48.91
16250	N	TYR	C	514	-64.592	-33.190	40.616	1.00	47.40
16251	CA	TYR	C	514	-65.022	-31.796	40.625	1.00	45.99
16252	CB	TYR	C	514	-63.823	-30.876	40.349	1.00	46.37
16253	CG	TYR	C	514	-62.751	-30.847	41.425	1.00	46.45
16254	CD1	TYR	C	514	-62.653	-29.772	42.299	1.00	45.90
16255	CE1	TYR	C	514	-61.682	-29.725	43.274	1.00	45.89
16256	C2	TYR	C	514	-60.775	-30.760	43.391	1.00	46.54
16257	OH	TYR	C	514	-59.813	-30.702	44.370	1.00	46.03
16258	CE2	TYR	C	514	-60.833	-31.837	42.527	1.00	46.37
16259	CD2	TYR	C	514	-61.821	-31.876	41.545	1.00	46.34

**REPLACEMENT SHEET**  
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**FIGURE 3 LI**

A	B	C	D	E	F	G	H	I	J
16260	C	TYR	C	514	-66.110	-31.490	39.586	1.00	44.66
16261	O	TYR	C	514	-66.156	-32.084	38.506	1.00	44.11
16262	N	PRO	C	515	-66.994	-30.558	39.924	1.00	43.58
16263	CA	PRO	C	515	-67.989	-30.075	38.966	1.00	42.42
16264	CB	PRO	C	515	-68.864	-29.137	39.796	1.00	42.57
16265	CG	PRO	C	515	-68.510	-29.388	41.201	1.00	43.62
16266	CD	PRO	C	515	-67.116	-29.917	41.242	1.00	43.47
16267	C	PRO	C	515	-67.227	-29.269	37.926	1.00	41.29
16268	O	PRO	C	515	-66.223	-28.628	38.255	1.00	41.28
16269	N	LEU	C	516	-67.688	-29.305	36.690	1.00	39.64
16270	CA	LEU	C	516	-66.989	-28.641	35.611	1.00	38.46
16271	CB	LEU	C	516	-66.460	-29.692	34.635	1.00	38.67
16272	CG	LEU	C	516	-65.667	-29.255	33.401	1.00	38.05
16273	CD1	LEU	C	516	-64.209	-29.124	33.739	1.00	36.52
16274	CD2	LEU	C	516	-65.827	-30.283	32.308	1.00	37.46
16275	C	LEU	C	516	-67.940	-27.682	34.889	1.00	37.84
16276	O	LEU	C	516	-69.102	-28.014	34.635	1.00	37.36
16277	N	LEU	C	517	-67.443	-26.486	34.593	1.00	36.52
16278	CA	LEU	C	517	-68.210	-25.490	33.877	1.00	35.89
16279	CB	LEU	C	517	-68.404	-24.238	34.727	1.00	35.94
16280	CG	LEU	C	517	-68.978	-23.022	34.005	1.00	35.16
16281	CD1	LEU	C	517	-68.996	-21.860	34.950	1.00	33.43
16282	CD2	LEU	C	517	-70.380	-23.317	33.475	1.00	34.88
16283	C	LEU	C	517	-67.465	-25.156	32.608	1.00	35.87
16284	O	LEU	C	517	-66.327	-24.682	32.647	1.00	35.50
16285	N	LEU	C	518	-68.106	-25.432	31.481	1.00	35.95
16286	CA	LEU	C	518	-67.500	-25.207	30.188	1.00	36.30
16287	CB	LEU	C	518	-68.041	-26.207	29.181	1.00	36.73
16288	CG	LEU	C	518	-67.282	-26.325	27.869	1.00	37.04
16289	CD1	LEU	C	518	-65.811	-26.590	28.134	1.00	35.63
16290	CD2	LEU	C	518	-67.905	-27.421	27.014	1.00	37.45
16291	C	LEU	C	518	-67.791	-23.787	29.735	1.00	36.65
16292	O	LEU	C	518	-68.924	-23.447	29.387	1.00	36.65
16293	N	ASP	C	519	-66.749	-22.967	29.771	1.00	36.55
16294	CA	ASP	C	519	-66.805	-21.572	29.402	1.00	36.82
16295	CB	ASP	C	519	-65.752	-20.816	30.212	1.00	36.79
16296	CG	ASP	C	519	-65.709	-19.360	29.894	1.00	38.12
16297	OD1	ASP	C	519	-65.070	-18.613	30.668	1.00	39.34
16298	OD2	ASP	C	519	-66.275	-18.868	28.887	1.00	40.62
16299	C	ASP	C	519	-66.522	-21.496	27.917	1.00	36.75
16300	O	ASP	C	519	-65.403	-21.757	27.486	1.00	37.25
16301	N	VAL	C	520	-67.529	-21.141	27.125	1.00	36.58
16302	CA	VAL	C	520	-67.366	-21.164	25.677	1.00	36.22
16303	CB	VAL	C	520	-68.311	-22.213	25.027	1.00	36.82
16304	CG1	VAL	C	520	-69.765	-21.780	25.170	1.00	36.54
16305	CG2	VAL	C	520	-67.986	-22.386	23.548	1.00	35.85
16306	C	VAL	C	520	-67.613	-19.853	24.926	1.00	35.93
16307	O	VAL	C	520	-68.394	-19.002	25.342	1.00	35.87
16308	N	TYR	C	521	-66.905	-19.711	23.816	1.00	35.45
16309	CA	TYR	C	521	-67.209	-18.693	22.839	1.00	35.17
16310	CB	TYR	C	521	-66.073	-17.707	22.647	1.00	35.08

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FIGURE 3 LJ

A	B	C	D	E	F	G	H	I	J
16311	CG	TYR	C	521	-66.482	-16.546	21.785	1.00	36.28
16312	CD1	TYR	C	521	-65.839	-16.284	20.581	1.00	37.58
16313	CE1	TYR	C	521	-66.213	-15.203	19.789	1.00	37.96
16314	CZ	TYR	C	521	-67.242	-14.385	20.193	1.00	37.65
16315	OH	TYR	C	521	-67.625	-13.317	19.397	1.00	39.32
16316	CE2	TYR	C	521	-67.900	-14.631	21.385	1.00	36.97
16317	CD2	TYR	C	521	-67.524	-15.709	22.168	1.00	36.92
16318	C	TYR	C	521	-67.416	-19.499	21.576	1.00	34.87
16319	O	TYR	C	521	-68.549	-19.667	21.123	1.00	34.35
16320	N	ALA	C	522	-66.302	-20.002	21.035	1.00	34.36
16321	CA	ALA	C	522	-66.267	-20.860	19.849	1.00	34.66
16322	CB	ALA	C	522	-67.105	-22.122	20.053	1.00	34.03
16323	C	ALA	C	522	-66.639	-20.174	18.538	1.00	35.15
16324	O	ALA	C	522	-67.042	-20.828	17.590	1.00	35.80
16325	N	GLY	C	523	-66.513	-18.863	18.476	1.00	35.90
16326	CA	GLY	C	523	-66.770	-18.161	17.237	1.00	37.37
16327	C	GLY	C	523	-65.615	-18.337	16.264	1.00	38.19
16328	O	GLY	C	523	-64.519	-18.759	16.643	1.00	38.72
16329	N	PRO	C	524	-65.854	-18.030	14.999	1.00	38.51
16330	CA	PRO	C	524	-64.820	-18.193	13.978	1.00	38.34
16331	CB	PRO	C	524	-65.494	-17.648	12.718	1.00	38.73
16332	CG	PRO	C	524	-66.940	-17.914	12.957	1.00	37.95
16333	CD	PRO	C	524	-67.132	-17.573	14.425	1.00	38.47
16334	C	PRO	C	524	-63.549	-17.440	14.314	1.00	38.47
16335	O	PRO	C	524	-63.571	-16.247	14.616	1.00	37.52
16336	N	CYS	C	525	-62.436	-18.171	14.255	1.00	38.84
16337	CA	CYS	C	525	-61.123	-17.626	14.562	1.00	38.88
16338	CB	CYS	C	525	-60.759	-16.485	13.612	1.00	38.85
16339	SG	CYS	C	525	-59.060	-15.880	13.830	1.00	40.62
16340	C	CYS	C	525	-61.048	-17.158	16.004	1.00	38.44
16341	O	CYS	C	525	-60.417	-16.146	16.313	1.00	38.85
16342	N	SER	C	526	-61.704	-17.884	16.895	1.00	38.38
16343	CA	SER	C	526	-61.654	-17.526	18.311	1.00	38.62
16344	CB	SER	C	526	-62.996	-17.809	18.994	1.00	38.49
16345	OG	SER	C	526	-63.435	-19.140	18.774	1.00	37.11
16346	C	SER	C	526	-60.542	-18.264	19.058	1.00	39.03
16347	O	SER	C	526	-60.001	-19.258	18.584	1.00	39.34
16348	N	GLN	C	527	-60.196	-17.755	20.230	1.00	39.54
16349	CA	GLN	C	527	-59.257	-18.434	21.100	1.00	39.53
16350	CB	GLN	C	527	-57.821	-17.977	20.862	1.00	39.36
16351	CG	GLN	C	527	-56.804	-18.894	21.539	1.00	38.55
16352	CD	GLN	C	527	-55.382	-18.582	21.129	1.00	36.93
16353	OE1	GLN	C	527	-54.818	-17.568	21.549	1.00	36.25
16354	NE2	GLN	C	527	-54.802	-19.443	20.301	1.00	35.31
16355	C	GLN	C	527	-59.632	-18.203	22.547	1.00	40.01
16356	O	GLN	C	527	-59.517	-17.087	23.057	1.00	39.96
16357	N	LYS	C	528	-60.052	-19.279	23.202	1.00	40.79
16358	CA	LYS	C	528	-60.438	-19.258	24.607	1.00	41.63
16359	CB	LYS	C	528	-61.821	-19.893	24.777	1.00	41.25
16360	CG	LYS	C	528	-62.964	-19.061	24.242	1.00	42.03
16361	CD	LYS	C	528	-62.998	-17.679	24.871	1.00	41.88

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**FIGURE 3 LK**

A	B	C	D	E	F	G	H	I	J
16362	CE	LYS	C	528	-63.410	-17.733	26.334	1.00	43.10
16363	NZ	LYS	C	528	-64.595	-18.591	26.552	1.00	43.01
16364	C	LYS	C	528	-59.435	-20.019	25.490	1.00	42.21
16365	O	LYS	C	528	-59.585	-20.041	26.707	1.00	42.08
16366	N	ALA	C	529	-58.452	-20.679	24.878	1.00	43.14
16367	CA	ALA	C	529	-57.400	-21.380	25.637	1.00	44.01
16368	CB	ALA	C	529	-57.263	-22.810	25.193	1.00	43.72
16369	C	ALA	C	529	-56.101	-20.621	25.426	1.00	44.60
16370	O	ALA	C	529	-55.393	-20.825	24.434	1.00	44.85
16371	N	ASP	C	530	-55.813	-19.742	26.381	1.00	45.15
16372	CA	ASP	C	530	-54.731	-18.776	26.297	1.00	45.16
16373	CB	ASP	C	530	-55.279	-17.374	26.611	1.00	45.38
16374	CG	ASP	C	530	-56.191	-16.835	25.547	1.00	47.53
16375	OD1	ASP	C	530	-56.389	-17.511	24.514	1.00	51.33
16376	OD2	ASP	C	530	-56.760	-15.725	25.653	1.00	49.13
16377	C	ASP	C	530	-53.650	-18.996	27.336	1.00	44.93
16378	O	ASP	C	530	-53.765	-19.821	28.244	1.00	44.54
16379	N	THR	C	531	-52.623	-18.171	27.211	1.00	44.51
16380	CA	THR	C	531	-51.547	-18.105	28.162	1.00	44.63
16381	CB	THR	C	531	-50.218	-17.958	27.403	1.00	44.73
16382	OG1	THR	C	531	-49.571	-19.236	27.328	1.00	44.91
16383	CG2	THR	C	531	-49.257	-17.124	28.184	1.00	44.96
16384	C	THR	C	531	-51.813	-16.877	29.014	1.00	44.29
16385	O	THR	C	531	-51.008	-16.521	29.875	1.00	44.87
16386	N	VAL	C	532	-52.951	-16.227	28.775	1.00	43.80
16387	CA	VAL	C	532	-53.306	-15.010	29.511	1.00	43.27
16388	CB	VAL	C	532	-54.450	-14.236	28.829	1.00	43.34
16389	CG1	VAL	C	532	-54.672	-12.897	29.531	1.00	42.91
16390	CG2	VAL	C	532	-54.165	-14.035	27.338	1.00	43.20
16391	C	VAL	C	532	-53.732	-15.267	30.955	1.00	42.83
16392	O	VAL	C	532	-54.409	-16.261	31.248	1.00	42.85
16393	N	PHE	C	533	-53.329	-14.361	31.843	1.00	41.98
16394	CA	PHE	C	533	-53.702	-14.411	33.249	1.00	41.36
16395	CB	PHE	C	533	-52.565	-13.918	34.138	1.00	41.44
16396	CG	PHE	C	533	-52.964	-13.784	35.574	1.00	41.43
16397	CD1	PHE	C	533	-52.925	-14.879	36.418	1.00	41.07
16398	CE1	PHE	C	533	-53.322	-14.766	37.732	1.00	40.00
16399	CZ	PHE	C	533	-53.775	-13.549	38.210	1.00	39.72
16400	CE2	PHE	C	533	-53.838	-12.457	37.372	1.00	38.97
16401	CD2	PHE	C	533	-53.437	-12.576	36.067	1.00	40.26
16402	C	PHE	C	533	-54.924	-13.537	33.524	1.00	41.00
16403	O	PHE	C	533	-54.880	-12.332	33.323	1.00	40.50
16404	N	ARG	C	534	-55.993	-14.128	34.049	1.00	40.90
16405	CA	ARG	C	534	-57.228	-13.371	34.249	1.00	40.66
16406	CB	ARG	C	534	-58.307	-13.855	33.279	1.00	40.29
16407	CG	ARG	C	534	-57.986	-13.583	31.920	1.00	40.64
16408	CD	ARG	C	534	-58.970	-14.213	30.847	1.00	41.30
16409	NE	ARG	C	534	-58.329	-14.682	29.619	1.00	41.87
16410	CZ	ARG	C	534	-58.104	-13.910	28.572	1.00	42.89
16411	NH1	ARG	C	534	-58.468	-12.627	28.616	1.00	46.10
16412	NH2	ARG	C	534	-57.520	-14.401	27.485	1.00	39.05

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**FIGURE 3 LL**

A	B	C	D	E	F	G	H	I	J
16413	C	ARG	C	534	-57.777	-13.400	35.655	1.00	40.25
16414	O	ARG	C	534	-57.635	-14.379	36.373	1.00	41.51
16415	N	LEU	C	535	-58.399	-12.302	36.043	1.00	39.84
16416	CA	LEU	C	535	-59.089	-12.207	37.319	1.00	39.11
16417	CB	LEU	C	535	-58.534	-11.054	38.151	1.00	39.17
16418	CG	LEU	C	535	-57.104	-11.299	38.668	1.00	39.51
16419	CD1	LEU	C	535	-56.585	-10.129	39.483	1.00	39.68
16420	CD2	LEU	C	535	-57.045	-12.577	39.505	1.00	38.92
16421	C	LEU	C	535	-60.559	-11.998	36.957	1.00	38.90
16422	O	LEU	C	535	-61.010	-10.871	36.702	1.00	38.84
16423	N	ASN	C	536	-61.301	-13.099	36.897	1.00	37.75
16424	CA	ASN	C	536	-62.671	-13.028	36.438	1.00	36.92
16425	CB	ASN	C	536	-62.702	-13.400	34.975	1.00	36.91
16426	CG	ASN	C	536	-62.185	-14.767	34.752	1.00	36.93
16427	OD1	ASN	C	536	-61.905	-15.481	35.716	1.00	35.89
16428	ND2	ASN	C	536	-62.046	-15.161	33.490	1.00	37.09
16429	C	ASN	C	536	-63.616	-13.931	37.234	1.00	35.92
16430	O	ASN	C	536	-63.264	-14.411	38.309	1.00	36.04
16431	N	TRP	C	537	-64.812	-14.147	36.697	1.00	34.35
16432	CA	TRP	C	537	-65.828	-14.943	37.363	1.00	33.16
16433	CB	TRP	C	537	-67.137	-14.928	36.556	1.00	32.12
16434	CG	TRP	C	537	-68.354	-15.634	37.166	1.00	27.97
16435	CD1	TRP	C	537	-68.867	-15.481	38.426	1.00	25.01
16436	NE1	TRP	C	537	-69.975	-16.286	38.592	1.00	23.18
16437	CE2	TRP	C	537	-70.212	-16.965	37.427	1.00	24.61
16438	CD2	TRP	C	537	-69.212	-16.582	36.507	1.00	25.62
16439	CE3	TRP	C	537	-69.241	-17.136	35.221	1.00	25.93
16440	CZ3	TRP	C	537	-70.241	-18.058	34.901	1.00	27.22
16441	CH2	TRP	C	537	-71.227	-18.408	35.838	1.00	28.01
16442	CZ2	TRP	C	537	-71.231	-17.871	37.101	1.00	26.78
16443	C	TRP	C	537	-65.290	-16.348	37.581	1.00	33.67
16444	O	TRP	C	537	-65.401	-16.888	38.672	1.00	34.23
16445	N	ALA	C	538	-64.684	-16.913	36.549	1.00	33.80
16446	CA	ALA	C	538	-64.071	-18.229	36.633	1.00	34.55
16447	CB	ALA	C	538	-63.438	-18.591	35.314	1.00	34.48
16448	C	ALA	C	538	-63.043	-18.346	37.768	1.00	34.94
16449	O	ALA	C	538	-62.919	-19.403	38.384	1.00	35.21
16450	N	THR	C	539	-62.320	-17.266	38.045	1.00	35.22
16451	CA	THR	C	539	-61.351	-17.253	39.135	1.00	35.66
16452	CB	THR	C	539	-60.624	-15.886	39.212	1.00	35.58
16453	OG1	THR	C	539	-60.016	-15.575	37.951	1.00	35.55
16454	CG2	THR	C	539	-59.446	-15.946	40.150	1.00	36.53
16455	C	THR	C	539	-62.098	-17.496	40.434	1.00	36.37
16456	O	THR	C	539	-61.663	-18.275	41.287	1.00	36.93
16457	N	TYR	C	540	-63.236	-16.823	40.582	1.00	36.55
16458	CA	TYR	C	540	-64.051	-16.956	41.780	1.00	36.24
16459	CB	TYR	C	540	-65.113	-15.866	41.820	1.00	35.97
16460	CG	TYR	C	540	-66.446	-16.363	42.341	1.00	35.62
16461	CD1	TYR	C	540	-67.475	-16.697	41.470	1.00	34.83
16462	CE1	TYR	C	540	-68.690	-17.151	41.949	1.00	34.16
16463	CZ	TYR	C	540	-68.878	-17.277	43.314	1.00	34.62



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**FIGURE 3 LM**

A	B	C	D	E	F	G	H	I	J
16464	OH	TYR	C	540	-70.076	-17.736	43.812	1.00	34.31
16465	CE2	TYR	C	540	-67.867	-16.960	44.194	1.00	33.49
16466	CD2	TYR	C	540	-66.666	-16.515	43.708	1.00	34.96
16467	C	TYR	C	540	-64.736	-18.313	41.848	1.00	36.61
16468	O	TYR	C	540	-64.882	-18.898	42.916	1.00	36.80
16469	N	LEU	C	541	-65.183	-18.809	40.709	1.00	36.87
16470	CA	LEU	C	541	-65.856	-20.092	40.700	1.00	37.25
16471	CB	LEU	C	541	-66.355	-20.415	39.291	1.00	36.93
16472	CG	LEU	C	541	-67.566	-19.587	38.829	1.00	38.22
16473	CD1	LEU	C	541	-67.862	-19.803	37.343	1.00	39.05
16474	CD2	LEU	C	541	-68.801	-19.873	39.668	1.00	36.20
16475	C	LEU	C	541	-64.930	-21.203	41.203	1.00	37.67
16476	O	LEU	C	541	-65.363	-22.101	41.915	1.00	37.33
16477	N	ALA	C	542	-63.657	-21.142	40.821	1.00	38.09
16478	CA	ALA	C	542	-62.717	-22.187	41.203	1.00	39.00
16479	CB	ALA	C	542	-61.599	-22.347	40.155	1.00	39.20
16480	C	ALA	C	542	-62.143	-21.960	42.595	1.00	39.15
16481	O	ALA	C	542	-62.083	-22.888	43.389	1.00	40.14
16482	N	SER	C	543	-61.747	-20.731	42.901	1.00	39.21
16483	CA	SER	C	543	-61.203	-20.426	44.217	1.00	39.14
16484	CB	SER	C	543	-60.750	-18.971	44.292	1.00	39.34
16485	OG	SER	C	543	-60.583	-18.543	45.636	1.00	39.58
16486	C	SER	C	543	-62.203	-20.699	45.328	1.00	39.36
16487	O	SER	C	543	-61.878	-21.352	46.316	1.00	39.08
16488	N	THR	C	544	-63.426	-20.206	45.157	1.00	39.58
16489	CA	THR	C	544	-64.447	-20.320	46.187	1.00	39.54
16490	CB	THR	C	544	-65.295	-19.044	46.203	1.00	39.71
16491	OG1	THR	C	544	-64.494	-17.943	46.641	1.00	40.26
16492	CG2	THR	C	544	-66.392	-19.126	47.256	1.00	39.12
16493	C	THR	C	544	-65.378	-21.526	46.089	1.00	39.77
16494	O	THR	C	544	-65.692	-22.152	47.097	1.00	40.00
16495	N	GLU	C	545	-65.842	-21.860	44.892	1.00	39.52
16496	CA	GLU	C	545	-66.839	-22.916	44.797	1.00	39.27
16497	CB	GLU	C	545	-67.973	-22.502	43.856	1.00	39.57
16498	CG	GLU	C	545	-68.526	-21.111	44.110	1.00	40.23
16499	CD	GLU	C	545	-69.258	-21.007	45.431	1.00	42.68
16500	OE1	GLU	C	545	-69.710	-19.890	45.776	1.00	42.51
16501	OE2	GLU	C	545	-69.390	-22.047	46.119	1.00	44.25
16502	C	GLU	C	545	-66.252	-24.254	44.381	1.00	38.97
16503	O	GLU	C	545	-66.964	-25.242	44.272	1.00	38.95
16504	N	ASN	C	546	-64.946	-24.273	44.153	1.00	38.74
16505	CA	ASN	C	546	-64.246	-25.494	43.770	1.00	38.27
16506	CB	ASN	C	546	-64.178	-26.487	44.943	1.00	37.92
16507	CG	ASN	C	546	-63.585	-25.855	46.201	1.00	38.77
16508	OD1	ASN	C	546	-64.262	-25.721	47.206	1.00	41.06
16509	ND2	ASN	C	546	-62.329	-25.421	46.126	1.00	39.38
16510	C	ASN	C	546	-64.809	-26.113	42.500	1.00	37.64
16511	O	ASN	C	546	-64.896	-27.337	42.356	1.00	37.60
16512	N	ILE	C	547	-65.180	-25.245	41.572	1.00	36.89
16513	CA	ILE	C	547	-65.659	-25.683	40.281	1.00	36.08
16514	CB	ILE	C	547	-66.820	-24.790	39.801	1.00	36.37

**REPLACEMENT SHEET**  
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**FIGURE 3 LN**

A	B	C	D	E	F	G	H	I	J
16515	CG1	ILE	C	547	-68.037	-24.967	40.700	1.00	36.20
16516	CD1	ILE	C	547	-69.000	-23.815	40.631	1.00	36.43
16517	CG2	ILE	C	547	-67.170	-25.094	38.334	1.00	34.81
16518	C	ILE	C	547	-64.528	-25.580	39.288	1.00	35.90
16519	O	ILE	C	547	-63.727	-24.658	39.336	1.00	35.90
16520	N	ILE	C	548	-64.448	-26.542	38.385	1.00	35.87
16521	CA	ILE	C	548	-63.467	-26.450	37.333	1.00	35.53
16522	CB	ILE	C	548	-63.015	-27.852	36.888	1.00	35.11
16523	CG1	ILE	C	548	-62.111	-28.490	37.955	1.00	35.15
16524	CD1	ILE	C	548	-61.816	-29.953	37.701	1.00	33.64
16525	CG2	ILE	C	548	-62.263	-27.773	35.562	1.00	34.96
16526	C	ILE	C	548	-64.132	-25.716	36.178	1.00	36.13
16527	O	ILE	C	548	-65.292	-25.979	35.849	1.00	35.24
16528	N	VAL	C	549	-63.421	-24.769	35.576	1.00	36.68
16529	CA	VAL	C	549	-63.981	-24.120	34.404	1.00	37.61
16530	CB	VAL	C	549	-64.516	-22.681	34.676	1.00	38.02
16531	CG1	VAL	C	549	-63.886	-22.104	35.895	1.00	37.21
16532	CG2	VAL	C	549	-64.381	-21.778	33.434	1.00	37.91
16533	C	VAL	C	549	-63.011	-24.249	33.263	1.00	37.87
16534	O	VAL	C	549	-61.891	-23.741	33.298	1.00	38.40
16535	N	ALA	C	550	-63.452	-24.988	32.260	1.00	38.59
16536	CA	ALA	C	550	-62.616	-25.330	31.136	1.00	39.07
16537	CB	ALA	C	550	-62.653	-26.838	30.910	1.00	38.57
16538	C	ALA	C	550	-63.101	-24.605	29.903	1.00	39.64
16539	O	ALA	C	550	-64.266	-24.236	29.816	1.00	39.78
16540	N	SER	C	551	-62.186	-24.401	28.962	1.00	40.23
16541	CA	SER	C	551	-62.492	-23.794	27.675	1.00	40.47
16542	CB	SER	C	551	-61.945	-22.376	27.608	1.00	40.26
16543	OG	SER	C	551	-62.591	-21.553	28.569	1.00	40.15
16544	C	SER	C	551	-61.858	-24.676	26.613	1.00	40.84
16545	O	SER	C	551	-60.957	-25.464	26.913	1.00	40.72
16546	N	PHE	C	552	-62.317	-24.555	25.374	1.00	41.26
16547	CA	PHE	C	552	-61.836	-25.446	24.336	1.00	41.74
16548	CB	PHE	C	552	-62.672	-26.712	24.352	1.00	41.97
16549	CG	PHE	C	552	-62.180	-27.772	23.431	1.00	43.86
16550	CD1	PHE	C	552	-60.964	-28.398	23.664	1.00	45.27
16551	CE1	PHE	C	552	-60.510	-29.397	22.814	1.00	46.32
16552	CZ	PHE	C	552	-61.275	-29.781	21.722	1.00	45.55
16553	CE2	PHE	C	552	-62.485	-29.161	21.482	1.00	45.75
16554	CD2	PHE	C	552	-62.935	-28.162	22.337	1.00	44.84
16555	C	PHE	C	552	-61.884	-24.836	22.951	1.00	41.94
16556	O	PHE	C	552	-62.936	-24.373	22.496	1.00	41.67
16557	N	ASP	C	553	-60.732	-24.844	22.283	1.00	42.13
16558	CA	ASP	C	553	-60.617	-24.339	20.924	1.00	41.89
16559	CB	ASP	C	553	-59.281	-23.658	20.737	1.00	42.09
16560	CG	ASP	C	553	-59.159	-22.394	21.538	1.00	43.48
16561	OD1	ASP	C	553	-60.196	-21.795	21.894	1.00	45.76
16562	OD2	ASP	C	553	-58.058	-21.906	21.845	1.00	45.69
16563	C	ASP	C	553	-60.743	-25.500	19.951	1.00	41.77
16564	O	ASP	C	553	-59.754	-26.158	19.594	1.00	41.88
16565	N	GLY	C	554	-61.969	-25.773	19.542	1.00	41.29

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**FIGURE 3 LO**

A	B	C	D	E	F	G	H	I	J
16566	CA	GLY	C	554	-62.220	-26.845	18.609	1.00	40.93
16567	C	GLY	C	554	-62.193	-26.316	17.197	1.00	40.83
16568	O	GLY	C	554	-61.634	-25.250	16.917	1.00	40.52
16569	N	ARG	C	555	-62.808	-27.069	16.301	1.00	40.99
16570	CA	ARG	C	555	-62.866	-26.677	14.908	1.00	41.49
16571	CB	ARG	C	555	-63.601	-27.740	14.102	1.00	41.66
16572	CG	ARG	C	555	-62.760	-28.989	13.875	1.00	41.22
16573	CD	ARG	C	555	-63.476	-30.097	13.156	1.00	40.78
16574	NE	ARG	C	555	-64.442	-30.770	14.014	1.00	41.22
16575	CZ	ARG	C	555	-65.264	-31.714	13.583	1.00	41.18
16576	NH1	ARG	C	555	-65.220	-32.087	12.309	1.00	41.17
16577	NH2	ARG	C	555	-66.122	-32.291	14.416	1.00	40.16
16578	C	ARG	C	555	-63.521	-25.311	14.728	1.00	41.79
16579	O	ARG	C	555	-64.683	-25.107	15.074	1.00	41.79
16580	N	GLY	C	556	-62.760	-24.380	14.177	1.00	41.99
16581	CA	GLY	C	556	-63.256	-23.047	13.921	1.00	41.94
16582	C	GLY	C	556	-62.359	-22.071	14.646	1.00	42.39
16583	O	GLY	C	556	-62.303	-20.893	14.290	1.00	42.40
16584	N	SER	C	557	-61.647	-22.557	15.663	1.00	42.64
16585	CA	SER	C	557	-60.792	-21.667	16.441	1.00	43.31
16586	CB	SER	C	557	-60.216	-22.349	17.693	1.00	43.59
16587	OG	SER	C	557	-59.333	-23.428	17.384	1.00	45.63
16588	C	SER	C	557	-59.719	-21.121	15.527	1.00	43.00
16589	O	SER	C	557	-59.514	-21.630	14.435	1.00	43.42
16590	N	GLY	C	558	-59.065	-20.054	15.945	1.00	43.19
16591	CA	GLY	C	558	-58.071	-19.441	15.102	1.00	43.61
16592	C	GLY	C	558	-56.649	-19.654	15.571	1.00	44.19
16593	O	GLY	C	558	-56.392	-20.332	16.583	1.00	43.85
16594	N	TYR	C	559	-55.730	-19.073	14.808	1.00	44.51
16595	CA	TYR	C	559	-54.319	-19.058	15.148	1.00	45.17
16596	CB	TYR	C	559	-54.153	-18.507	16.562	1.00	44.88
16597	CG	TYR	C	559	-54.891	-17.195	16.723	1.00	45.50
16598	CD1	TYR	C	559	-56.035	-17.095	17.522	1.00	46.07
16599	CE1	TYR	C	559	-56.723	-15.890	17.650	1.00	44.38
16600	CZ	TYR	C	559	-56.268	-14.775	16.969	1.00	45.26
16601	OH	TYR	C	559	-56.927	-13.574	17.077	1.00	46.25
16602	CE2	TYR	C	559	-55.149	-14.853	16.167	1.00	45.07
16603	CD2	TYR	C	559	-54.474	-16.060	16.040	1.00	45.53
16604	C	TYR	C	559	-53.640	-20.408	14.959	1.00	45.74
16605	O	TYR	C	559	-52.617	-20.695	15.583	1.00	45.64
16606	N	GLN	C	560	-54.200	-21.214	14.064	1.00	46.65
16607	CA	GLN	C	560	-53.680	-22.550	13.796	1.00	47.75
16608	CB	GLN	C	560	-54.429	-23.579	14.648	1.00	47.67
16609	CG	GLN	C	560	-54.543	-23.198	16.114	1.00	47.93
16610	CD	GLN	C	560	-55.769	-23.791	16.774	1.00	48.39
16611	OE1	GLN	C	560	-55.814	-24.992	17.049	1.00	48.11
16612	NE2	GLN	C	560	-56.772	-22.950	17.029	1.00	48.26
16613	C	GLN	C	560	-53.809	-22.932	12.324	1.00	48.53
16614	O	GLN	C	560	-53.763	-24.118	11.981	1.00	48.91
16615	N	GLY	C	561	-53.990	-21.940	11.456	1.00	49.30
16616	CA	GLY	C	561	-54.115	-22.201	10.033	1.00	50.32

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FIGURE 3 LP

A	B	C	D	E	F	G	H	I	J
16617	C	GLY	C	561	-55.525	-22.504	9.566	1.00	50.96
16618	O	GLY	C	561	-56.317	-23.069	10.318	1.00	51.27
16619	N	ASP	C	562	-55.818	-22.155	8.310	1.00	51.66
16620	CA	ASP	C	562	-57.157	-22.286	7.713	1.00	52.41
16621	CB	ASP	C	562	-57.138	-21.884	6.238	1.00	52.90
16622	CG	ASP	C	562	-56.800	-20.439	6.035	1.00	54.58
16623	OD1	ASP	C	562	-56.684	-19.702	7.044	1.00	57.97
16624	OD2	ASP	C	562	-56.622	-19.953	4.900	1.00	56.06
16625	C	ASP	C	562	-57.814	-23.650	7.778	1.00	52.25
16626	O	ASP	C	562	-59.020	-23.755	7.594	1.00	52.28
16627	N	LYS	C	563	-57.036	-24.696	7.996	1.00	52.37
16628	CA	LYS	C	563	-57.602	-26.041	7.977	1.00	52.51
16629	CB	LYS	C	563	-56.501	-27.099	8.107	1.00	52.84
16630	CG	LYS	C	563	-57.007	-28.505	8.419	1.00	53.34
16631	CD	LYS	C	563	-57.820	-29.095	7.274	1.00	55.29
16632	CE	LYS	C	563	-58.334	-30.493	7.624	1.00	56.52
16633	NZ	LYS	C	563	-57.237	-31.397	8.106	1.00	56.44
16634	C	LYS	C	563	-58.630	-26.212	9.081	1.00	52.27
16635	O	LYS	C	563	-59.670	-26.843	8.887	1.00	51.73
16636	N	ILE	C	564	-58.337	-25.639	10.241	1.00	51.93
16637	CA	ILE	C	564	-59.230	-25.784	11.373	1.00	52.01
16638	CB	ILE	C	564	-58.426	-26.018	12.652	1.00	52.00
16639	CG1	ILE	C	564	-59.364	-26.344	13.811	1.00	52.03
16640	CD1	ILE	C	564	-59.619	-25.180	14.719	1.00	52.08
16641	CG2	ILE	C	564	-57.582	-24.794	12.970	1.00	52.27
16642	C	ILE	C	564	-60.147	-24.577	11.528	1.00	51.91
16643	O	ILE	C	564	-61.282	-24.701	11.987	1.00	51.73
16644	N	MET	C	565	-59.657	-23.409	11.140	1.00	51.61
16645	CA	MET	C	565	-60.458	-22.212	11.282	1.00	51.47
16646	CB	MET	C	565	-59.615	-20.955	11.073	1.00	51.54
16647	CG	MET	C	565	-60.460	-19.705	10.934	1.00	51.13
16648	SD	MET	C	565	-59.551	-18.180	11.173	1.00	51.56
16649	CE	MET	C	565	-58.922	-17.890	9.531	1.00	50.91
16650	C	MET	C	565	-61.629	-22.224	10.310	1.00	51.27
16651	O	MET	C	565	-62.723	-21.778	10.647	1.00	51.17
16652	N	HIS	C	566	-61.395	-22.746	9.109	1.00	51.02
16653	CA	HIS	C	566	-62.420	-22.778	8.073	1.00	50.69
16654	CB	HIS	C	566	-61.799	-22.574	6.695	1.00	50.92
16655	CG	HIS	C	566	-61.310	-21.179	6.461	1.00	51.05
16656	ND1	HIS	C	566	-60.921	-20.724	5.221	1.00	51.62
16657	CE1	HIS	C	566	-60.554	-19.457	5.313	1.00	52.72
16658	NE2	HIS	C	566	-60.690	-19.074	6.571	1.00	52.74
16659	CD2	HIS	C	566	-61.160	-20.134	7.310	1.00	51.36
16660	C	HIS	C	566	-63.215	-24.058	8.111	1.00	50.68
16661	O	HIS	C	566	-64.132	-24.261	7.319	1.00	50.92
16662	N	ALA	C	567	-62.868	-24.930	9.042	1.00	50.62
16663	CA	ALA	C	567	-63.605	-26.161	9.197	1.00	50.77
16664	CB	ALA	C	567	-63.204	-26.855	10.475	1.00	50.79
16665	C	ALA	C	567	-65.101	-25.859	9.194	1.00	51.11
16666	O	ALA	C	567	-65.896	-26.641	8.655	1.00	51.22
16667	N	ILE	C	568	-65.482	-24.720	9.777	1.00	50.95

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**FIGURE 3 LQ**

A	B	C	D	E	F	G	H	I	J
16668	CA	ILE	C	568	-66.899	-24.356	9.856	1.00	51.05
16669	CB	ILE	C	568	-67.262	-23.718	11.226	1.00	50.91
16670	CG1	ILE	C	568	-66.195	-22.723	11.692	1.00	50.96
16671	CD1	ILE	C	568	-66.179	-21.411	10.952	1.00	51.13
16672	CG2	ILE	C	568	-67.441	-24.789	12.263	1.00	50.84
16673	C	ILE	C	568	-67.447	-23.488	8.734	1.00	51.22
16674	O	ILE	C	568	-68.620	-23.153	8.759	1.00	51.53
16675	N	ASN	C	569	-66.628	-23.117	7.757	1.00	51.43
16676	CA	ASN	C	569	-67.126	-22.276	6.669	1.00	51.48
16677	CB	ASN	C	569	-66.137	-22.263	5.501	1.00	51.32
16678	CG	ASN	C	569	-66.540	-21.291	4.406	1.00	51.63
16679	OD1	ASN	C	569	-67.048	-21.694	3.357	1.00	51.78
16680	ND2	ASN	C	569	-66.310	-20.005	4.640	1.00	51.32
16681	C	ASN	C	569	-68.516	-22.721	6.193	1.00	51.53
16682	O	ASN	C	569	-68.763	-23.907	6.002	1.00	51.32
16683	N	ARG	C	570	-69.429	-21.765	6.035	1.00	51.74
16684	CA	ARG	C	570	-70.792	-22.055	5.595	1.00	51.88
16685	CB	ARG	C	570	-70.791	-22.635	4.184	1.00	52.09
16686	CG	ARG	C	570	-70.401	-21.854	3.093	1.00	53.46
16687	CD	ARG	C	570	-70.372	-22.291	1.704	1.00	55.35
16688	NE	ARG	C	570	-71.603	-23.028	1.415	1.00	55.87
16689	CZ	ARG	C	570	-72.720	-22.465	0.958	1.00	56.49
16690	NH1	ARG	C	570	-73.787	-23.221	0.731	1.00	56.98
16691	NH2	ARG	C	570	-72.775	-21.153	0.725	1.00	54.90
16692	C	ARG	C	570	-71.503	-23.032	6.513	1.00	51.76
16693	O	ARG	C	570	-72.614	-23.468	6.224	1.00	51.59
16694	N	ARG	C	571	-70.865	-23.372	7.623	1.00	51.82
16695	CA	ARG	C	571	-71.421	-24.371	8.519	1.00	51.99
16696	CB	ARG	C	571	-70.737	-25.716	8.274	1.00	52.37
16697	CG	ARG	C	571	-71.638	-26.790	7.659	1.00	54.66
16698	CD	ARG	C	571	-71.790	-26.743	6.144	1.00	57.11
16699	NE	ARG	C	571	-73.091	-26.227	5.721	1.00	59.49
16700	CZ	ARG	C	571	-73.691	-26.552	4.577	1.00	60.45
16701	NH1	ARG	C	571	-74.875	-26.034	4.274	1.00	60.04
16702	NH2	ARG	C	571	-73.113	-27.396	3.733	1.00	60.76
16703	C	ARG	C	571	-71.361	-24.016	10.004	1.00	51.39
16704	O	ARG	C	571	-70.995	-24.843	10.830	1.00	51.58
16705	N	LEU	C	572	-71.719	-22.785	10.337	1.00	50.60
16706	CA	LEU	C	572	-71.820	-22.375	11.733	1.00	49.53
16707	CB	LEU	C	572	-72.217	-20.899	11.815	1.00	49.15
16708	CG	LEU	C	572	-71.108	-19.868	12.017	1.00	49.38
16709	CD1	LEU	C	572	-71.494	-18.543	11.413	1.00	50.08
16710	CD2	LEU	C	572	-69.767	-20.325	11.479	1.00	48.95
16711	C	LEU	C	572	-72.871	-23.250	12.427	1.00	48.87
16712	O	LEU	C	572	-73.839	-23.669	11.800	1.00	48.51
16713	N	GLY	C	573	-72.673	-23.530	13.714	1.00	48.27
16714	CA	GLY	C	573	-73.602	-24.350	14.474	1.00	47.83
16715	C	GLY	C	573	-73.434	-25.842	14.258	1.00	47.81
16716	O	GLY	C	573	-74.372	-26.620	14.437	1.00	47.71
16717	N	THR	C	574	-72.234	-26.248	13.860	1.00	48.01
16718	CA	THR	C	574	-71.951	-27.657	13.630	1.00	48.12

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**FIGURE 3 LR**

A	B	C	D	E	F	G	H	I	J
16719	CB	THR	C	574	-71.755	-27.943	12.125	1.00	48.42
16720	OG1	THR	C	574	-70.599	-27.240	11.643	1.00	48.49
16721	CG2	THR	C	574	-72.907	-27.360	11.312	1.00	48.11
16722	C	THR	C	574	-70.728	-28.126	14.410	1.00	48.05
16723	O	THR	C	574	-70.813	-28.392	15.614	1.00	47.93
16724	N	PHE	C	575	-69.596	-28.212	13.716	1.00	47.66
16725	CA	PHE	C	575	-68.352	-28.731	14.291	1.00	47.46
16726	CB	PHE	C	575	-67.211	-28.654	13.266	1.00	47.51
16727	CG	PHE	C	575	-67.502	-29.384	11.987	1.00	46.95
16728	CD1	PHE	C	575	-68.111	-30.628	12.012	1.00	46.47
16729	OE1	PHE	C	575	-68.391	-31.305	10.848	1.00	45.87
16730	CZ	PHE	C	575	-68.069	-30.742	9.628	1.00	47.21
16731	CE2	PHE	C	575	-67.463	-29.493	9.582	1.00	48.25
16732	CD2	PHE	C	575	-67.185	-28.821	10.763	1.00	47.21
16733	C	PHE	C	575	-67.943	-28.056	15.598	1.00	47.31
16734	O	PHE	C	575	-67.533	-28.728	16.545	1.00	47.09
16735	N	GLU	C	576	-68.043	-26.729	15.629	1.00	47.40
16736	CA	GLU	C	576	-67.730	-25.922	16.811	1.00	47.37
16737	CB	GLU	C	576	-68.087	-24.469	16.528	1.00	47.70
16738	CG	GLU	C	576	-69.396	-24.370	15.753	1.00	49.50
16739	CD	GLU	C	576	-69.845	-22.955	15.543	1.00	51.64
16740	OE1	GLU	C	576	-69.110	-22.041	15.962	1.00	55.10
16741	OE2	GLU	C	576	-70.926	-22.754	14.962	1.00	52.07
16742	C	GLU	C	576	-68.582	-26.392	17.972	1.00	46.69
16743	O	GLU	C	576	-68.115	-26.518	19.099	1.00	46.67
16744	N	VAL	C	577	-69.849	-26.637	17.679	1.00	46.14
16745	CA	VAL	C	577	-70.809	-27.068	18.681	1.00	45.80
16746	CB	VAL	C	577	-72.238	-26.956	18.142	1.00	45.30
16747	CG1	VAL	C	577	-72.543	-25.822	17.833	1.00	45.07
16748	CG2	VAL	C	577	-73.227	-27.513	19.128	1.00	45.15
16749	C	VAL	C	577	-70.525	-28.491	19.143	1.00	46.01
16750	O	VAL	C	577	-70.573	-28.778	20.342	1.00	45.34
16751	N	GLU	C	578	-70.234	-29.378	18.193	1.00	46.47
16752	CA	GLU	C	578	-69.909	-30.756	18.540	1.00	47.41
16753	CB	GLU	C	578	-69.719	-31.645	17.306	1.00	47.95
16754	CG	GLU	C	578	-69.566	-33.119	17.691	1.00	51.44
16755	CD	GLU	C	578	-68.335	-33.802	17.088	1.00	55.56
16756	OE1	GLU	C	578	-68.189	-33.801	15.833	1.00	56.75
16757	OE2	GLU	C	578	-67.517	-34.352	17.876	1.00	55.92
16758	C	GLU	C	578	-68.633	-30.821	19.356	1.00	46.76
16759	O	GLU	C	578	-68.595	-31.442	20.418	1.00	46.81
16760	N	ASP	C	579	-67.591	-30.176	18.844	1.00	46.10
16761	CA	ASP	C	579	-66.289	-30.233	19.472	1.00	45.83
16762	CB	ASP	C	579	-65.262	-29.446	18.657	1.00	45.86
16763	CG	ASP	C	579	-65.005	-30.070	17.284	1.00	46.12
16764	OD1	ASP	C	579	-65.534	-31.169	17.008	1.00	45.17
16765	OD2	ASP	C	579	-64.283	-29.535	16.416	1.00	47.24
16766	C	ASP	C	579	-66.323	-29.809	20.941	1.00	45.70
16767	O	ASP	C	579	-65.476	-30.234	21.736	1.00	45.44
16768	N	GLN	C	580	-67.313	-29.000	21.307	1.00	45.21
16769	CA	GLN	C	580	-67.453	-28.576	22.693	1.00	44.84

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**FIGURE 3 LS**

A	B	C	D	E	F	G	H	I	J
16770	CB	GLN	C	580	-68.332	-27.324	22.808	1.00	44.58
16771	CG	GLN	C	580	-67.720	-26.056	22.257	1.00	43.48
16772	CD	GLN	C	580	-66.564	-25.539	23.095	1.00	43.32
16773	OE1	GLN	C	580	-66.543	-25.717	24.315	1.00	43.34
16774	NE2	GLN	C	580	-65.607	-24.888	22.448	1.00	41.53
16775	C	GLN	C	580	-68.058	-29.721	23.497	1.00	44.86
16776	O	GLN	C	580	-67.748	-29.910	24.678	1.00	45.10
16777	N	ILE	C	581	-68.924	-30.487	22.857	1.00	45.08
16778	CA	ILE	C	581	-69.565	-31.615	23.525	1.00	45.76
16779	CB	ILE	C	581	-70.768	-32.100	22.722	1.00	45.76
16780	CG1	ILE	C	581	-71.763	-30.949	22.540	1.00	45.11
16781	CD1	ILE	C	581	-72.866	-31.243	21.562	1.00	45.04
16782	CG2	ILE	C	581	-71.426	-33.284	23.420	1.00	45.93
16783	C	ILE	C	581	-68.577	-32.752	23.785	1.00	46.32
16784	O	ILE	C	581	-68.519	-33.288	24.891	1.00	46.68
16785	N	GLU	C	582	-67.793	-33.113	22.777	1.00	46.90
16786	CA	GLU	C	582	-66.762	-34.135	22.964	1.00	47.45
16787	CB	GLU	C	582	-66.044	-34.455	21.642	1.00	47.64
16788	CG	GLU	C	582	-66.515	-35.742	20.969	1.00	48.90
16789	CD	GLU	C	582	-65.940	-36.988	21.616	1.00	49.74
16790	OE1	GLU	C	582	-64.704	-37.109	21.679	1.00	51.84
16791	OE2	GLU	C	582	-66.718	-37.855	22.059	1.00	50.95
16792	C	GLU	C	582	-65.756	-33.663	23.998	1.00	47.32
16793	O	GLU	C	582	-65.335	-34.426	24.874	1.00	47.48
16794	N	ALA	C	583	-65.367	-32.400	23.891	1.00	47.24
16795	CA	ALA	C	583	-64.426	-31.830	24.835	1.00	47.16
16796	CB	ALA	C	583	-64.344	-30.327	24.660	1.00	47.11
16797	C	ALA	C	583	-64.897	-32.181	26.228	1.00	47.26
16798	O	ALA	C	583	-64.154	-32.744	27.020	1.00	47.22
16799	N	ALA	C	584	-66.155	-31.869	26.516	1.00	47.82
16800	CA	ALA	C	584	-66.711	-32.163	27.826	1.00	48.16
16801	CB	ALA	C	584	-68.161	-31.743	27.910	1.00	48.18
16802	C	ALA	C	584	-66.557	-33.639	28.128	1.00	48.51
16803	O	ALA	C	584	-66.142	-33.995	29.225	1.00	48.47
16804	N	ARG	C	585	-66.891	-34.491	27.160	1.00	49.12
16805	CA	ARG	C	585	-66.724	-35.929	27.336	1.00	50.18
16806	CB	ARG	C	585	-67.079	-36.700	26.063	1.00	50.00
16807	CG	ARG	C	585	-68.501	-36.548	25.532	1.00	50.05
16808	CD	ARG	C	585	-68.884	-37.673	24.566	1.00	50.16
16809	NE	ARG	C	585	-69.641	-37.219	23.399	1.00	50.86
16810	CZ	ARG	C	585	-70.968	-37.202	23.331	1.00	51.91
16811	NH1	ARG	C	585	-71.697	-37.606	24.374	1.00	51.70
16812	NH2	ARG	C	585	-71.569	-36.783	22.222	1.00	51.06
16813	C	ARG	C	585	-65.263	-36.202	27.657	1.00	50.87
16814	O	ARG	C	585	-64.944	-36.843	28.647	1.00	50.99
16815	N	GLN	C	586	-64.380	-35.704	26.799	1.00	52.00
16816	CA	GLN	C	586	-62.949	-35.898	26.966	1.00	53.14
16817	CB	GLN	C	586	-62.172	-35.141	25.885	1.00	53.53
16818	CG	GLN	C	586	-62.158	-35.834	24.536	1.00	54.41
16819	CD	GLN	C	586	-61.109	-36.929	24.459	1.00	56.50
16820	OE1	GLN	C	586	-61.412	-38.104	24.680	1.00	58.23

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**FIGURE 3 LT**

A	B	C	D	E	F	G	H	I	J
16821	NE2	GLN	C	586	-59.874	-36.549	24.146	1.00	56.63
16822	C	GLN	C	586	-62.483	-35.472	28.349	1.00	53.50
16823	O	GLN	C	586	-61.595	-36.100	28.924	1.00	53.86
16824	N	PHE	C	587	-63.078	-34.412	28.889	1.00	53.98
16825	CA	PHE	C	587	-62.709	-33.969	30.228	1.00	54.32
16826	CB	PHE	C	587	-63.286	-32.591	30.550	1.00	54.34
16827	CG	PHE	C	587	-62.729	-31.495	29.701	1.00	54.30
16828	CD1	PHE	C	587	-61.388	-31.477	29.371	1.00	54.33
16829	CE1	PHE	C	587	-60.866	-30.469	28.582	1.00	54.45
16830	CZ	PHE	C	587	-61.689	-29.473	28.113	1.00	54.28
16831	CE2	PHE	C	587	-63.035	-29.486	28.426	1.00	54.02
16832	CD2	PHE	C	587	-63.548	-30.490	29.219	1.00	53.89
16833	C	PHE	C	587	-63.160	-34.986	31.259	1.00	54.60
16834	O	PHE	C	587	-62.455	-35.243	32.232	1.00	54.81
16835	N	SER	C	588	-64.330	-35.572	31.040	1.00	54.74
16836	CA	SER	C	588	-64.847	-36.578	31.958	1.00	55.47
16837	CB	SER	C	588	-66.258	-36.997	31.548	1.00	55.46
16838	OG	SER	C	588	-67.012	-35.864	31.159	1.00	56.80
16839	C	SER	C	588	-63.939	-37.810	32.042	1.00	55.46
16840	O	SER	C	588	-63.824	-38.439	33.090	1.00	55.32
16841	N	LYS	C	589	-63.288	-38.152	30.939	1.00	55.66
16842	CA	LYS	C	589	-62.434	-39.334	30.935	1.00	56.05
16843	CB	LYS	C	589	-62.231	-39.875	29.514	1.00	56.24
16844	CG	LYS	C	589	-63.528	-40.019	28.709	1.00	57.14
16845	CD	LYS	C	589	-64.678	-40.529	29.589	1.00	58.46
16846	CE	LYS	C	589	-66.029	-40.028	29.084	1.00	58.38
16847	NZ	LYS	C	589	-67.151	-40.300	30.036	1.00	57.94
16848	C	LYS	C	589	-61.100	-39.042	31.601	1.00	55.88
16849	O	LYS	C	589	-60.267	-39.929	31.763	1.00	56.10
16850	N	MET	C	590	-60.904	-37.791	31.996	1.00	55.61
16851	CA	MET	C	590	-59.666	-37.405	32.649	1.00	55.00
16852	CB	MET	C	590	-59.411	-35.909	32.499	1.00	55.18
16853	CG	MET	C	590	-59.012	-35.507	31.093	1.00	56.25
16854	SD	MET	C	590	-58.735	-33.724	30.931	1.00	57.90
16855	CE	MET	C	590	-58.014	-33.669	29.300	1.00	57.21
16856	C	MET	C	590	-59.685	-37.808	34.110	1.00	54.11
16857	O	MET	C	590	-58.660	-37.740	34.776	1.00	54.39
16858	N	GLY	C	591	-60.856	-38.192	34.613	1.00	53.15
16859	CA	GLY	C	591	-60.976	-38.744	35.956	1.00	51.80
16860	C	GLY	C	591	-61.267	-37.884	37.175	1.00	51.13
16861	O	GLY	C	591	-61.609	-38.416	38.223	1.00	51.07
16862	N	PHE	C	592	-61.133	-36.569	37.068	1.00	50.63
16863	CA	PHE	C	592	-61.378	-35.693	38.218	1.00	49.98
16864	CB	PHE	C	592	-60.184	-34.765	38.436	1.00	50.10
16865	CG	PHE	C	592	-59.627	-34.200	37.166	1.00	50.12
16866	CD1	PHE	C	592	-58.446	-34.691	36.635	1.00	50.15
16867	CE1	PHE	C	592	-57.935	-34.173	35.464	1.00	50.40
16868	CZ	PHE	C	592	-58.612	-33.154	34.803	1.00	50.89
16869	CE2	PHE	C	592	-59.789	-32.664	35.320	1.00	49.57
16870	CD2	PHE	C	592	-60.291	-33.187	36.496	1.00	49.76
16871	C	PHE	C	592	-62.659	-34.867	38.062	1.00	49.40



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**FIGURE 3 LU**

A	B	C	D	E	F	G	H	I	J
16872	O	PHE	C	592	-62.833	-33.825	38.703	1.00	48.85
16873	N	VAL	C	593	-63.564	-35.350	37.221	1.00	48.83
16874	CA	VAL	C	593	-64.791	-34.621	36.942	1.00	48.30
16875	CB	VAL	C	593	-64.862	-34.235	35.457	1.00	48.35
16876	CG1	VAL	C	593	-66.216	-33.655	35.127	1.00	48.07
16877	CG2	VAL	C	593	-63.752	-33.253	35.106	1.00	48.30
16878	C	VAL	C	593	-66.054	-35.391	37.288	1.00	48.19
16879	O	VAL	C	593	-66.199	-36.569	36.939	1.00	48.02
16880	N	ASP	C	594	-66.970	-34.723	37.981	1.00	47.98
16881	CA	ASP	C	594	-68.253	-35.324	38.280	1.00	47.68
16882	CB	ASP	C	594	-68.964	-34.588	39.413	1.00	47.47
16883	CG	ASP	C	594	-70.240	-35.290	39.853	1.00	47.21
16884	OD1	ASP	C	594	-70.722	-35.011	40.970	1.00	46.89
16885	OD2	ASP	C	594	-70.835	-36.135	39.147	1.00	45.92
16886	C	ASP	C	594	-69.087	-35.250	37.019	1.00	48.03
16887	O	ASP	C	594	-69.548	-34.175	36.639	1.00	48.06
16888	N	ASN	C	595	-69.272	-36.395	36.367	1.00	48.29
16889	CA	ASN	C	595	-70.065	-36.476	35.149	1.00	48.38
16890	CB	ASN	C	595	-70.120	-37.922	34.650	1.00	48.96
16891	CG	ASN	C	595	-68.845	-38.346	33.948	1.00	51.36
16892	OD1	ASN	C	595	-67.808	-37.685	34.071	1.00	53.72
16893	ND2	ASN	C	595	-68.912	-39.454	33.205	1.00	51.67
16894	C	ASN	C	595	-71.489	-35.954	35.334	1.00	47.73
16895	O	ASN	C	595	-72.152	-35.582	34.367	1.00	47.69
16896	N	LYS	C	596	-71.965	-35.942	36.572	1.00	46.77
16897	CA	LYS	C	596	-73.324	-35.497	36.841	1.00	46.12
16898	CB	LYS	C	596	-73.893	-36.200	38.076	1.00	46.38
16899	CG	LYS	C	596	-74.107	-37.693	37.888	1.00	48.36
16900	CD	LYS	C	596	-74.951	-38.294	39.009	1.00	52.00
16901	CE	LYS	C	596	-74.335	-38.064	40.384	1.00	53.52
16902	NZ	LYS	C	596	-73.053	-38.801	40.581	1.00	55.00
16903	C	LYS	C	596	-73.422	-33.982	37.010	1.00	45.21
16904	O	LYS	C	596	-74.524	-33.428	37.026	1.00	45.12
16905	N	ARG	C	597	-72.279	-33.315	37.144	1.00	43.57
16906	CA	ARG	C	597	-72.288	-31.864	37.296	1.00	42.14
16907	CB	ARG	C	597	-71.996	-31.471	38.742	1.00	42.29
16908	CG	ARG	C	597	-73.052	-32.015	39.692	1.00	43.16
16909	CD	ARG	C	597	-72.836	-31.675	41.134	1.00	44.23
16910	NE	ARG	C	597	-71.517	-32.101	41.566	1.00	46.92
16911	CZ	ARG	C	597	-70.867	-31.580	42.594	1.00	46.35
16912	NH1	ARG	C	597	-71.419	-30.606	43.296	1.00	47.28
16913	NH2	ARG	C	597	-69.663	-32.028	42.915	1.00	46.60
16914	C	ARG	C	597	-71.376	-31.145	36.302	1.00	40.92
16915	O	ARG	C	597	-70.379	-30.553	36.668	1.00	40.12
16916	N	ILE	C	598	-71.746	-31.226	35.028	1.00	39.93
16917	CA	ILE	C	598	-71.036	-30.549	33.961	1.00	38.82
16918	CB	ILE	C	598	-70.729	-31.530	32.836	1.00	38.90
16919	CG1	ILE	C	598	-69.771	-32.620	33.329	1.00	39.16
16920	CD1	ILE	C	598	-69.535	-33.711	32.314	1.00	39.45
16921	CG2	ILE	C	598	-70.150	-30.804	31.638	1.00	37.40
16922	C	ILE	C	598	-71.959	-29.449	33.450	1.00	38.43

**REPLACEMENT SHEET**  
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**FIGURE 3 LV**

A	B	C	D	E	F	G	H	I	J
16923	O	ILE	C	598	-73.123	-29.697	33.143	1.00	38.10
16924	N	ALA	C	599	-71.440	-28.232	33.369	1.00	37.43
16925	CA	ALA	C	599	-72.240	-27.108	32.938	1.00	36.53
16926	CB	ALA	C	599	-72.361	-26.093	34.057	1.00	36.78
16927	C	ALA	C	599	-71.625	-26.475	31.721	1.00	35.94
16928	O	ALA	C	599	-70.489	-26.786	31.354	1.00	36.54
16929	N	ILE	C	600	-72.375	-25.571	31.107	1.00	34.62
16930	CA	ILE	C	600	-71.947	-24.904	29.893	1.00	33.64
16931	CB	ILE	C	600	-72.403	-25.754	28.652	1.00	33.18
16932	CG1	ILE	C	600	-71.601	-25.455	27.388	1.00	33.22
16933	CD1	ILE	C	600	-71.251	-24.046	27.210	1.00	34.49
16934	CG2	ILE	C	600	-73.909	-25.698	28.423	1.00	33.99
16935	C	ILE	C	600	-72.540	-23.492	29.926	1.00	33.11
16936	O	ILE	C	600	-73.693	-23.313	30.307	1.00	33.14
16937	N	TRP	C	601	-71.726	-22.488	29.607	1.00	32.41
16938	CA	TRP	C	601	-72.182	-21.108	29.586	1.00	32.23
16939	CB	TRP	C	601	-72.082	-20.448	30.967	1.00	31.82
16940	CG	TRP	C	601	-70.841	-19.600	31.208	1.00	31.38
16941	CD1	TRP	C	601	-69.596	-20.050	31.531	1.00	31.05
16942	NE1	TRP	C	601	-68.738	-18.994	31.711	1.00	30.87
16943	CE2	TRP	C	601	-69.421	-17.825	31.515	1.00	30.19
16944	CD2	TRP	C	601	-70.751	-18.167	31.193	1.00	30.23
16945	CE3	TRP	C	601	-71.659	-17.135	30.935	1.00	29.79
16946	CZ3	TRP	C	601	-71.218	-15.813	31.001	1.00	29.38
16947	CH2	TRP	C	601	-69.884	-15.510	31.324	1.00	29.36
16948	CZ2	TRP	C	601	-68.972	-16.502	31.574	1.00	29.88
16949	C	TRP	C	601	-71.386	-20.297	28.590	1.00	31.88
16950	O	TRP	C	601	-70.202	-20.543	28.373	1.00	32.27
16951	N	GLY	C	602	-72.043	-19.327	27.988	1.00	31.47
16952	CA	GLY	C	602	-71.370	-18.457	27.045	1.00	31.55
16953	C	GLY	C	602	-72.167	-17.193	26.784	1.00	31.15
16954	O	GLY	C	602	-73.370	-17.166	26.989	1.00	31.09
16955	N	TRP	C	603	-71.477	-16.165	26.307	1.00	31.43
16956	CA	TRP	C	603	-72.052	-14.869	25.979	1.00	31.67
16957	CB	TRP	C	603	-71.208	-13.797	26.675	1.00	31.79
16958	CG	TRP	C	603	-71.834	-12.459	26.918	1.00	30.21
16959	CD1	TRP	C	603	-72.414	-11.632	26.003	1.00	28.51
16960	NE1	TRP	C	603	-72.847	-10.476	26.615	1.00	27.71
16961	CE2	TRP	C	603	-72.554	-10.542	27.951	1.00	28.88
16962	CD2	TRP	C	603	-71.903	-11.776	28.176	1.00	29.70
16963	CE3	TRP	C	603	-71.483	-12.086	29.477	1.00	28.49
16964	CZ3	TRP	C	603	-71.716	-11.176	30.487	1.00	30.03
16965	CH2	TRP	C	603	-72.354	-9.945	30.222	1.00	30.46
16966	CZ2	TRP	C	603	-72.780	-9.617	28.968	1.00	29.02
16967	C	TRP	C	603	-71.935	-14.679	24.472	1.00	32.12
16968	O	TRP	C	603	-70.895	-14.982	23.900	1.00	32.12
16969	N	SER	C	604	-72.992	-14.178	23.833	1.00	32.82
16970	CA	SER	C	604	-72.987	-13.888	22.388	1.00	33.24
16971	CB	SER	C	604	-71.887	-12.871	22.049	1.00	33.52
16972	OG	SER	C	604	-72.264	-12.037	20.949	1.00	35.24
16973	C	SER	C	604	-72.857	-15.162	21.550	1.00	33.18

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**FIGURE 3 LW**

A	B	C	D	E	F	G	H	I	J
16974	O	SER	C	604	-73.732	-16.037	21.600	1.00	33.25
16975	N	TYR	C	605	-71.784	-15.276	20.773	1.00	33.40
16976	CA	TYR	C	605	-71.550	-16.501	20.015	1.00	33.41
16977	CB	TYR	C	605	-70.240	-16.454	19.221	1.00	33.56
16978	CG	TYR	C	605	-70.234	-17.447	18.081	1.00	33.91
16979	CD1	TYR	C	605	-70.399	-17.028	16.768	1.00	33.65
16980	CE1	TYR	C	605	-70.426	-17.937	15.725	1.00	34.31
16981	CZ	TYR	C	605	-70.288	-19.282	15.979	1.00	34.30
16982	OH	TYR	C	605	-70.304	-20.178	14.925	1.00	34.05
16983	CE2	TYR	C	605	-70.128	-19.734	17.273	1.00	33.84
16984	CD2	TYR	C	605	-70.108	-18.815	18.320	1.00	35.11
16985	C	TYR	C	605	-71.500	-17.643	21.010	1.00	33.18
16986	O	TYR	C	605	-71.911	-18.761	20.717	1.00	33.99
16987	N	GLY	C	606	-71.006	-17.357	22.202	1.00	33.02
16988	CA	GLY	C	606	-70.955	-18.367	23.243	1.00	32.79
16989	C	GLY	C	606	-72.326	-18.701	23.802	1.00	32.74
16990	O	GLY	C	606	-72.539	-19.787	24.353	1.00	32.95
16991	N	GLY	C	607	-73.260	-17.762	23.694	1.00	32.42
16992	CA	GLY	C	607	-74.621	-18.026	24.128	1.00	32.80
16993	C	GLY	C	607	-75.277	-18.928	23.101	1.00	32.99
16994	O	GLY	C	607	-76.028	-19.860	23.424	1.00	33.21
16995	N	TYR	C	608	-74.968	-18.647	21.846	1.00	32.78
16996	CA	TYR	C	608	-75.458	-19.452	20.749	1.00	33.55
16997	CB	TYR	C	608	-74.975	-18.856	19.422	1.00	33.33
16998	CG	TYR	C	608	-75.255	-19.701	18.208	1.00	34.41
16999	CD1	TYR	C	608	-74.218	-20.272	17.489	1.00	34.39
17000	CE1	TYR	C	608	-74.459	-21.028	16.378	1.00	33.71
17001	CZ	TYR	C	608	-75.738	-21.227	15.968	1.00	33.92
17002	OH	TYR	C	608	-75.965	-21.986	14.845	1.00	35.42
17003	CE2	TYR	C	608	-76.795	-20.671	16.658	1.00	34.18
17004	CD2	TYR	C	608	-76.550	-19.908	17.760	1.00	34.86
17005	C	TYR	C	608	-74.970	-20.891	20.934	1.00	33.89
17006	O	TYR	C	608	-75.778	-21.819	21.019	1.00	33.91
17007	N	VAL	C	609	-73.650	-21.071	21.027	1.00	34.10
17008	CA	VAL	C	609	-73.083	-22.418	21.168	1.00	34.52
17009	CB	VAL	C	609	-71.525	-22.410	21.147	1.00	34.97
17010	CG1	VAL	C	609	-70.956	-23.796	21.469	1.00	35.13
17011	CG2	VAL	C	609	-71.028	-21.918	19.800	1.00	34.79
17012	C	VAL	C	609	-73.617	-23.106	22.413	1.00	34.10
17013	O	VAL	C	609	-73.993	-24.264	22.359	1.00	34.11
17014	N	THR	C	610	-73.687	-22.384	23.529	1.00	34.16
17015	CA	THR	C	610	-74.262	-22.954	24.750	1.00	33.60
17016	CB	THR	C	610	-74.406	-21.878	25.846	1.00	33.65
17017	OG1	THR	C	610	-73.128	-21.568	26.398	1.00	34.10
17018	CG2	THR	C	610	-75.163	-22.406	27.037	1.00	32.30
17019	C	THR	C	610	-75.630	-23.516	24.449	1.00	33.87
17020	O	THR	C	610	-75.936	-24.666	24.768	1.00	34.43
17021	N	SER	C	611	-76.465	-22.697	23.824	1.00	34.11
17022	CA	SER	C	611	-77.837	-23.092	23.552	1.00	34.11
17023	CB	SER	C	611	-78.598	-21.929	22.920	1.00	34.29
17024	OG	SER	C	611	-78.484	-20.766	23.711	1.00	33.66

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**FIGURE 3 LX**

A	B	C	D	E	F	G	H	I	J
17025	C	SER	C	611	-77.886	-24.281	22.618	1.00	34.42
17026	O	SER	C	611	-78.688	-25.198	22.797	1.00	34.17
17027	N	MET	C	612	-77.029	-24.250	21.605	1.00	35.04
17028	CA	MET	C	612	-76.975	-25.326	20.630	1.00	35.38
17029	CB	MET	C	612	-76.049	-24.947	19.480	1.00	35.10
17030	CG	MET	C	612	-76.579	-23.795	18.669	1.00	33.97
17031	SD	MET	C	612	-78.125	-24.240	17.800	1.00	35.94
17032	CE	MET	C	612	-77.390	-25.206	16.334	1.00	32.83
17033	C	MET	C	612	-76.530	-26.606	21.329	1.00	36.08
17034	O	MET	C	612	-77.085	-27.684	21.082	1.00	36.72
17035	N	VAL	C	613	-75.557	-26.492	22.227	1.00	35.96
17036	CA	VAL	C	613	-75.130	-27.666	22.978	1.00	36.62
17037	CB	VAL	C	613	-73.917	-27.375	23.899	1.00	36.20
17038	CG1	VAL	C	613	-73.677	-28.526	24.828	1.00	35.73
17039	CG2	VAL	C	613	-72.683	-27.109	23.082	1.00	35.75
17040	C	VAL	C	613	-76.305	-28.136	23.813	1.00	37.29
17041	O	VAL	C	613	-76.727	-29.276	23.719	1.00	38.04
17042	N	LEU	C	614	-76.851	-27.236	24.618	1.00	38.36
17043	CA	LEU	C	614	-77.979	-27.571	25.484	1.00	39.09
17044	CB	LEU	C	614	-78.514	-26.315	26.166	1.00	38.88
17045	CG	LEU	C	614	-77.630	-25.883	27.322	1.00	38.68
17046	CD1	LEU	C	614	-77.362	-27.100	28.172	1.00	38.39
17047	CD2	LEU	C	614	-78.308	-24.807	28.134	1.00	36.78
17048	C	LEU	C	614	-79.110	-28.255	24.753	1.00	39.45
17049	O	LEU	C	614	-79.832	-29.048	25.338	1.00	39.17
17050	N	GLY	C	615	-79.272	-27.932	23.473	1.00	40.51
17051	CA	GLY	C	615	-80.341	-28.504	22.676	1.00	40.87
17052	C	GLY	C	615	-79.888	-29.653	21.795	1.00	41.58
17053	O	GLY	C	615	-80.673	-30.168	20.986	1.00	41.90
17054	N	SER	C	616	-78.630	-30.062	21.951	1.00	41.72
17055	CA	SER	C	616	-78.069	-31.152	21.151	1.00	41.97
17056	CB	SER	C	616	-76.561	-31.195	21.314	1.00	41.68
17057	OG	SER	C	616	-76.249	-31.654	22.616	1.00	42.65
17058	C	SER	C	616	-78.633	-32.532	21.495	1.00	42.07
17059	O	SER	C	616	-78.662	-33.418	20.646	1.00	42.08
17060	N	GLY	C	617	-79.062	-32.719	22.740	1.00	42.26
17061	CA	GLY	C	617	-79.603	-33.997	23.173	1.00	42.25
17062	C	GLY	C	617	-78.494	-34.925	23.627	1.00	42.59
17063	O	GLY	C	617	-78.714	-36.110	23.901	1.00	42.33
17064	N	SER	C	618	-77.296	-34.359	23.739	1.00	42.64
17065	CA	SER	C	618	-76.098	-35.111	24.076	1.00	42.59
17066	CB	SER	C	618	-74.862	-34.216	23.969	1.00	42.56
17067	OG	SER	C	618	-74.743	-33.380	25.112	1.00	43.35
17068	C	SER	C	618	-76.138	-35.771	25.451	1.00	42.60
17069	O	SER	C	618	-75.524	-36.819	25.642	1.00	42.76
17070	N	GLY	C	619	-76.823	-35.152	26.413	1.00	42.31
17071	CA	GLY	C	619	-76.921	-35.706	27.759	1.00	41.39
17072	C	GLY	C	619	-75.720	-35.422	28.646	1.00	41.22
17073	O	GLY	C	619	-75.721	-35.717	29.839	1.00	41.55
17074	N	VAL	C	620	-74.690	-34.822	28.069	1.00	40.74
17075	CA	VAL	C	620	-73.464	-34.522	28.799	1.00	39.86

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**FIGURE 3 LY**

A	B	C	D	E	F	G	H	I	J
17076	CB	VAL	C	620	-72.388	-34.083	27.811	1.00	39.67
17077	CG1	VAL	C	620	-71.107	-33.745	28.537	1.00	39.38
17078	CG2	VAL	C	620	-72.169	-35.168	26.779	1.00	39.20
17079	C	VAL	C	620	-73.625	-33.398	29.820	1.00	39.94
17080	O	VAL	C	620	-73.079	-33.439	30.932	1.00	39.36
17081	N	PHE	C	621	-74.372	-32.379	29.423	1.00	39.77
17082	CA	PHE	C	621	-74.543	-31.215	30.259	1.00	39.49
17083	CB	PHE	C	621	-74.423	-29.974	29.394	1.00	39.71
17084	CG	PHE	C	621	-73.097	-29.865	28.685	1.00	39.12
17085	CD1	PHE	C	621	-72.905	-30.470	27.454	1.00	39.23
17086	CE1	PHE	C	621	-71.685	-30.371	26.803	1.00	38.37
17087	CZ	PHE	C	621	-70.658	-29.655	27.380	1.00	37.67
17088	CE2	PHE	C	621	-70.838	-29.053	28.612	1.00	37.11
17089	CD2	PHE	C	621	-72.043	-29.160	29.257	1.00	36.87
17090	C	PHE	C	621	-75.856	-31.244	31.018	1.00	39.47
17091	O	PHE	C	621	-76.893	-31.674	30.521	1.00	39.87
17092	N	LYS	C	622	-75.803	-30.798	32.250	1.00	39.38
17093	CA	LYS	C	622	-76.977	-30.819	33.086	1.00	39.26
17094	CB	LYS	C	622	-76.521	-31.210	34.490	1.00	39.00
17095	CG	LYS	C	622	-77.546	-31.051	35.594	1.00	39.56
17096	CD	LYS	C	622	-76.865	-31.106	36.951	1.00	40.55
17097	CE	LYS	C	622	-77.826	-31.472	38.067	1.00	41.54
17098	NZ	LYS	C	622	-78.564	-30.300	38.587	1.00	43.09
17099	C	LYS	C	622	-77.480	-29.403	33.136	1.00	38.96
17100	O	LYS	C	622	-78.568	-29.125	33.632	1.00	38.86
17101	N	CYS	C	623	-76.704	-28.523	32.527	1.00	38.77
17102	CA	CYS	C	623	-76.767	-27.148	32.913	1.00	38.86
17103	CB	CYS	C	623	-75.829	-27.102	34.099	1.00	40.12
17104	SG	CYS	C	623	-76.401	-26.181	35.452	1.00	43.70
17105	C	CYS	C	623	-76.116	-26.210	31.958	1.00	37.46
17106	O	CYS	C	623	-75.035	-26.509	31.446	1.00	37.36
17107	N	GLY	C	624	-76.702	-25.027	31.806	1.00	36.02
17108	CA	GLY	C	624	-76.106	-24.025	30.953	1.00	34.25
17109	C	GLY	C	624	-76.740	-22.657	31.009	1.00	32.76
17110	O	GLY	C	624	-77.937	-22.514	31.265	1.00	32.76
17111	N	ILE	C	625	-75.916	-21.649	30.757	1.00	31.31
17112	CA	ILE	C	625	-76.359	-20.271	30.753	1.00	29.91
17113	CB	ILE	C	625	-75.690	-19.477	31.867	1.00	29.76
17114	CG1	ILE	C	625	-75.939	-20.154	33.218	1.00	29.14
17115	CD1	ILE	C	625	-75.396	-19.370	34.398	1.00	30.29
17116	CG2	ILE	C	625	-76.190	-18.033	31.844	1.00	27.52
17117	C	ILE	C	625	-75.992	-19.629	29.444	1.00	29.26
17118	O	ILE	C	625	-74.817	-19.590	29.087	1.00	29.27
17119	N	ALA	C	626	-76.998	-19.140	28.731	1.00	28.47
17120	CA	ALA	C	626	-76.773	-18.382	27.509	1.00	28.34
17121	CB	ALA	C	626	-77.692	-18.864	26.379	1.00	27.97
17122	C	ALA	C	626	-77.034	-16.920	27.804	1.00	28.30
17123	O	ALA	C	626	-78.106	-16.548	28.293	1.00	28.46
17124	N	VAL	C	627	-76.042	-16.088	27.527	1.00	28.44
17125	CA	VAL	C	627	-76.198	-14.657	27.699	1.00	28.35
17126	CB	VAL	C	627	-75.099	-14.081	28.587	1.00	28.72

**REPLACEMENT SHEET**  
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**FIGURE 3 LZ**

A	B	C	D	E	F	G	H	I	J
17127	CG1	VAL	C	627	-75.289	-12.579	28.744	1.00	27.70
17128	CG2	VAL	C	627	-75.069	-14.806	29.950	1.00	28.15
17129	C	VAL	C	627	-76.095	-13.988	26.331	1.00	28.29
17130	O	VAL	C	627	-75.111	-14.178	25.614	1.00	28.29
17131	N	ALA	C	628	-77.119	-13.223	25.974	1.00	27.39
17132	CA	ALA	C	628	-77.144	-12.475	24.713	1.00	26.74
17133	CB	ALA	C	628	-76.253	-11.263	24.813	1.00	26.49
17134	C	ALA	C	628	-76.772	-13.325	23.510	1.00	26.29
17135	O	ALA	C	628	-75.975	-12.941	22.674	1.00	25.93
17136	N	PRO	C	629	-77.404	-14.474	23.400	1.00	26.54
17137	CA	PRO	C	629	-77.091	-15.421	22.347	1.00	26.91
17138	CB	PRO	C	629	-77.784	-16.671	22.874	1.00	26.98
17139	CG	PRO	C	629	-79.035	-16.108	23.393	1.00	25.93
17140	CD	PRO	C	629	-78.485	-14.985	24.256	1.00	26.49
17141	C	PRO	C	629	-77.716	-15.068	21.005	1.00	27.71
17142	O	PRO	C	629	-78.839	-14.531	20.928	1.00	27.00
17143	N	VAL	C	630	-76.982	-15.368	19.941	1.00	28.10
17144	CA	VAL	C	630	-77.574	-15.331	18.630	1.00	28.32
17145	CB	VAL	C	630	-76.514	-15.487	17.535	1.00	29.26
17146	CG1	VAL	C	630	-77.167	-15.871	16.205	1.00	27.63
17147	CG2	VAL	C	630	-75.705	-14.228	17.378	1.00	27.55
17148	C	VAL	C	630	-78.424	-16.600	18.698	1.00	28.99
17149	O	VAL	C	630	-78.030	-17.549	19.367	1.00	29.78
17150	N	SER	C	631	-79.584	-16.614	18.055	1.00	29.40
17151	CA	SER	C	631	-80.460	-17.785	18.043	1.00	29.82
17152	CB	SER	C	631	-81.768	-17.481	18.752	1.00	29.67
17153	OG	SER	C	631	-82.450	-16.468	18.067	1.00	28.41
17154	C	SER	C	631	-80.762	-18.255	16.620	1.00	30.66
17155	O	SER	C	631	-81.152	-19.396	16.413	1.00	30.31
17156	N	ARG	C	632	-80.625	-17.353	15.651	1.00	31.60
17157	CA	ARG	C	632	-80.727	-17.726	14.252	1.00	33.04
17158	CB	ARG	C	632	-82.170	-17.890	13.790	1.00	33.95
17159	CG	ARG	C	632	-82.839	-16.622	13.450	1.00	35.70
17160	CD	ARG	C	632	-83.911	-16.736	12.385	1.00	40.20
17161	NE	ARG	C	632	-84.374	-18.089	12.152	1.00	42.40
17162	CZ	ARG	C	632	-85.235	-18.397	11.185	1.00	45.70
17163	NH1	ARG	C	632	-85.622	-19.658	11.002	1.00	43.76
17164	NH2	ARG	C	632	-85.718	-17.430	10.397	1.00	45.81
17165	C	ARG	C	632	-79.981	-16.692	13.426	1.00	33.22
17166	O	ARG	C	632	-80.112	-15.485	13.638	1.00	33.56
17167	N	TRP	C	633	-79.195	-17.166	12.472	1.00	33.29
17168	CA	TRP	C	633	-78.300	-16.276	11.763	1.00	33.58
17169	CB	TRP	C	633	-77.226	-17.071	11.000	1.00	33.49
17170	CG	TRP	C	633	-76.340	-17.724	12.012	1.00	33.94
17171	CD1	TRP	C	633	-76.351	-19.030	12.398	1.00	33.15
17172	NE1	TRP	C	633	-75.434	-19.231	13.400	1.00	34.18
17173	CE2	TRP	C	633	-74.813	-18.039	13.679	1.00	33.45
17174	CD2	TRP	C	633	-75.374	-17.069	12.840	1.00	33.32
17175	CE3	TRP	C	633	-74.910	-15.753	12.937	1.00	34.06
17176	CZ3	TRP	C	633	-73.930	-15.455	13.850	1.00	33.46
17177	CH2	TRP	C	633	-73.388	-16.446	14.668	1.00	34.25

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**FIGURE 3 MA**

A	B	C	D	E	F	G	H	I	J
17178	C22	TRP	C	633	-73.819	-17.741	14.599	1.00	33.75
17179	C	TRP	C	633	-78.943	-15.144	10.967	1.00	33.52
17180	O	TRP	C	633	-78.325	-14.102	10.782	1.00	34.23
17181	N	GLU	C	634	-80.180	-15.324	10.532	1.00	33.78
17182	CA	GLU	C	634	-80.861	-14.253	9.806	1.00	34.16
17183	CB	GLU	C	634	-82.202	-14.717	9.255	1.00	34.07
17184	CG	GLU	C	634	-82.108	-15.639	8.054	1.00	36.42
17185	CD	GLU	C	634	-82.418	-17.078	8.414	1.00	39.31
17186	OE1	GLU	C	634	-83.359	-17.642	7.807	1.00	38.59
17187	OE2	GLU	C	634	-81.735	-17.627	9.322	1.00	40.88
17188	C	GLU	C	634	-81.081	-13.009	10.671	1.00	33.84
17189	O	GLU	C	634	-81.339	-11.922	10.151	1.00	33.64
17190	N	TYR	C	635	-80.983	-13.163	11.989	1.00	32.97
17191	CA	TYR	C	635	-81.240	-12.039	12.867	1.00	32.19
17192	CB	TYR	C	635	-81.641	-12.530	14.252	1.00	32.26
17193	CG	TYR	C	635	-82.968	-13.267	14.341	1.00	31.06
17194	CD1	TYR	C	635	-84.000	-13.015	13.451	1.00	31.62
17195	CE1	TYR	C	635	-85.217	-13.688	13.555	1.00	30.68
17196	CZ	TYR	C	635	-85.386	-14.602	14.550	1.00	28.71
17197	OH	TYR	C	635	-86.559	-15.277	14.674	1.00	29.34
17198	CE2	TYR	C	635	-84.385	-14.845	15.446	1.00	30.12
17199	CD2	TYR	C	635	-83.183	-14.187	15.334	1.00	28.26
17200	C	TYR	C	635	-80.014	-11.184	13.045	1.00	32.11
17201	O	TYR	C	635	-80.118	-10.059	13.495	1.00	32.11
17202	N	TYR	C	636	-78.849	-11.725	12.718	1.00	31.77
17203	CA	TYR	C	636	-77.602	-11.031	13.008	1.00	32.19
17204	CB	TYR	C	636	-76.530	-12.012	13.549	1.00	31.98
17205	CG	TYR	C	636	-75.428	-11.293	14.289	1.00	31.71
17206	CD1	TYR	C	636	-75.727	-10.444	15.340	1.00	30.05
17207	CE1	TYR	C	636	-74.741	-9.739	15.991	1.00	28.81
17208	CZ	TYR	C	636	-73.434	-9.888	15.598	1.00	27.74
17209	OH	TYR	C	636	-72.454	-9.194	16.241	1.00	25.92
17210	CE2	TYR	C	636	-73.104	-10.722	14.556	1.00	28.79
17211	CD2	TYR	C	636	-74.096	-11.420	13.904	1.00	30.86
17212	C	TYR	C	636	-77.117	-10.207	11.827	1.00	32.70
17213	O	TYR	C	636	-77.584	-10.390	10.700	1.00	32.60
17214	N	ASP	C	637	-76.191	-9.288	12.094	1.00	34.23
17215	CA	ASP	C	637	-75.706	-8.349	11.081	1.00	34.69
17216	CB	ASP	C	637	-74.807	-7.272	11.686	1.00	34.90
17217	CG	ASP	C	637	-73.408	-7.769	12.010	1.00	36.72
17218	OD1	ASP	C	637	-72.629	-8.121	11.087	1.00	37.39
17219	OD2	ASP	C	637	-72.977	-7.786	13.182	1.00	39.27
17220	C	ASP	C	637	-75.029	-9.002	9.887	1.00	35.51
17221	O	ASP	C	637	-74.316	-10.016	10.011	1.00	35.91
17222	N	SER	C	638	-75.250	-8.378	8.735	1.00	35.24
17223	CA	SER	C	638	-74.774	-8.863	7.445	1.00	35.54
17224	CB	SER	C	638	-75.170	-7.854	6.358	1.00	35.16
17225	CG	SER	C	638	-74.367	-6.697	6.489	1.00	33.95
17226	C	SER	C	638	-73.271	-9.144	7.346	1.00	35.66
17227	O	SER	C	638	-72.873	-10.247	7.023	1.00	35.12
17228	N	VAL	C	639	-72.444	-8.137	7.597	1.00	36.79

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**FIGURE 3 MB**

A	B	C	D	E	F	G	H	I	J
17229	CA	VAL	C	639	-71.006	-8.313	7.433	1.00	37.50
17230	CB	VAL	C	639	-70.204	-6.982	7.587	1.00	37.62
17231	CG1	VAL	C	639	-68.771	-7.243	7.990	1.00	36.07
17232	CG2	VAL	C	639	-70.860	-6.060	8.554	1.00	37.50
17233	C	VAL	C	639	-70.442	-9.478	8.249	1.00	38.49
17234	O	VAL	C	639	-69.700	-10.305	7.712	1.00	39.33
17235	N	TYR	C	640	-70.821	-9.593	9.516	1.00	39.06
17236	CA	TYR	C	640	-70.324	-10.709	10.327	1.00	39.24
17237	CB	TYR	C	640	-70.677	-10.533	11.794	1.00	39.23
17238	CG	TYR	C	640	-70.104	-11.611	12.689	1.00	39.59
17239	CD1	TYR	C	640	-68.868	-11.439	13.299	1.00	40.35
17240	CE1	TYR	C	640	-68.331	-12.411	14.123	1.00	40.39
17241	CZ	TYR	C	640	-69.035	-13.575	14.354	1.00	40.21
17242	OH	TYR	C	640	-68.490	-14.526	15.188	1.00	40.53
17243	CE2	TYR	C	640	-70.270	-13.773	13.767	1.00	38.88
17244	CD2	TYR	C	640	-70.798	-12.792	12.937	1.00	39.33
17245	C	TYR	C	640	-70.906	-12.022	9.879	1.00	39.48
17246	O	TYR	C	640	-70.180	-12.999	9.674	1.00	39.99
17247	N	THR	C	641	-72.224	-12.057	9.744	1.00	39.54
17248	CA	THR	C	641	-72.906	-13.295	9.404	1.00	39.60
17249	CB	THR	C	641	-74.422	-13.083	9.439	1.00	39.84
17250	OG1	THR	C	641	-74.832	-12.695	10.759	1.00	38.30
17251	CG2	THR	C	641	-75.174	-14.412	9.166	1.00	39.08
17252	C	THR	C	641	-72.481	-13.894	8.054	1.00	40.26
17253	O	THR	C	641	-71.993	-15.020	7.999	1.00	40.38
17254	N	GLU	C	642	-72.670	-13.137	6.979	1.00	40.73
17255	CA	GLU	C	642	-72.374	-13.600	5.620	1.00	41.55
17256	CB	GLU	C	642	-72.769	-12.504	4.629	1.00	41.64
17257	CG	GLU	C	642	-74.212	-12.058	4.818	1.00	41.31
17258	CD	GLU	C	642	-74.503	-10.705	4.223	1.00	40.79
17259	OE1	GLU	C	642	-73.554	-10.053	3.752	1.00	41.89
17260	OE2	GLU	C	642	-75.684	-10.290	4.239	1.00	40.01
17261	C	GLU	C	642	-70.919	-14.050	5.413	1.00	42.17
17262	O	GLU	C	642	-70.633	-15.006	4.685	1.00	42.48
17263	N	ARG	C	643	-70.006	-13.348	6.066	1.00	42.70
17264	CA	ARG	C	643	-68.597	-13.698	6.064	1.00	42.56
17265	CB	ARG	C	643	-67.893	-12.953	7.199	1.00	42.28
17266	CG	ARG	C	643	-66.442	-13.299	7.370	1.00	41.76
17267	CD	ARG	C	643	-65.778	-12.557	8.516	1.00	41.43
17268	NE	ARG	C	643	-66.051	-11.127	8.492	1.00	40.24
17269	CZ	ARG	C	643	-66.102	-10.357	9.574	1.00	39.75
17270	NH1	ARG	C	643	-66.364	-9.051	9.452	1.00	37.41
17271	NH2	ARG	C	643	-65.892	-10.891	10.779	1.00	37.15
17272	C	ARG	C	643	-68.405	-15.188	6.265	1.00	42.95
17273	O	ARG	C	643	-67.512	-15.797	5.658	1.00	43.32
17274	N	TYR	C	644	-69.230	-15.776	7.126	1.00	42.77
17275	CA	TYR	C	644	-69.121	-17.204	7.412	1.00	43.05
17276	CB	TYR	C	644	-69.031	-17.458	8.925	1.00	42.61
17277	CG	TYR	C	644	-68.128	-16.507	9.650	1.00	41.89
17278	CD1	TYR	C	644	-66.789	-16.402	9.312	1.00	41.82
17279	CE1	TYR	C	644	-65.960	-15.529	9.962	1.00	40.56



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**FIGURE 3 MC**

A	B	C	D	E	F	G	H	I	J
17280	CZ	TYR	C	644	-66.462	-14.748	10.966	1.00	40.93
17281	OH	TYR	C	644	-65.636	-13.869	11.616	1.00	42.11
17282	CE2	TYR	C	644	-67.790	-14.825	11.319	1.00	41.34
17283	CD2	TYR	C	644	-68.614	-15.699	10.661	1.00	41.55
17284	C	TYR	C	644	-70.294	-18.009	6.892	1.00	43.28
17285	O	TYR	C	644	-70.234	-19.233	6.856	1.00	43.75
17286	N	MET	C	645	-71.373	-17.351	6.502	1.00	43.62
17287	CA	MET	C	645	-72.560	-18.125	6.152	1.00	44.32
17288	CB	MET	C	645	-73.691	-17.847	7.158	1.00	44.38
17289	CG	MET	C	645	-73.467	-18.442	8.534	1.00	43.62
17290	SD	MET	C	645	-74.103	-20.120	8.619	1.00	44.50
17291	CE	MET	C	645	-75.862	-19.820	8.342	1.00	41.22
17292	C	MET	C	645	-73.071	-17.907	4.740	1.00	44.74
17293	O	MET	C	645	-73.955	-18.633	4.294	1.00	44.86
17294	N	GLY	C	646	-72.524	-16.926	4.036	1.00	45.12
17295	CA	GLY	C	646	-73.048	-16.599	2.721	1.00	46.52
17296	C	GLY	C	646	-74.415	-15.956	2.893	1.00	47.23
17297	O	GLY	C	646	-74.722	-15.437	3.965	1.00	47.68
17298	N	LEU	C	647	-75.252	-15.992	1.865	1.00	47.94
17299	CA	LEU	C	647	-76.563	-15.359	1.976	1.00	48.69
17300	CB	LEU	C	647	-76.905	-14.568	0.710	1.00	48.71
17301	CG	LEU	C	647	-75.854	-13.625	0.133	1.00	49.78
17302	CD1	LEU	C	647	-75.447	-12.544	1.152	1.00	50.66
17303	CD2	LEU	C	647	-74.641	-14.387	-0.374	1.00	50.76
17304	C	LEU	C	647	-77.683	-16.343	2.294	1.00	48.89
17305	O	LEU	C	647	-77.620	-17.510	1.932	1.00	48.43
17306	N	PRO	C	648	-78.710	-15.845	2.976	1.00	49.42
17307	CA	PRO	C	648	-79.881	-16.644	3.332	1.00	50.21
17308	CB	PRO	C	648	-80.548	-15.814	4.434	1.00	49.80
17309	CG	PRO	C	648	-79.631	-14.702	4.706	1.00	49.54
17310	CD	PRO	C	648	-78.833	-14.467	3.470	1.00	49.59
17311	C	PRO	C	648	-80.865	-16.811	2.169	1.00	50.95
17312	O	PRO	C	648	-82.052	-16.998	2.424	1.00	51.46
17313	N	THR	C	649	-80.401	-16.718	0.926	1.00	51.64
17314	CA	THR	C	649	-81.271	-16.987	-0.222	1.00	52.36
17315	CB	THR	C	649	-80.887	-16.118	-1.421	1.00	52.18
17316	OG1	THR	C	649	-79.719	-16.663	-2.043	1.00	53.23
17317	CG2	THR	C	649	-80.432	-14.743	-0.972	1.00	52.56
17318	C	THR	C	649	-81.130	-18.449	-0.617	1.00	52.58
17319	O	THR	C	649	-80.092	-19.058	-0.375	1.00	52.70
17320	N	PRO	C	650	-82.172	-19.005	-1.228	1.00	53.12
17321	CA	PRO	C	650	-82.174	-20.401	-1.683	1.00	53.38
17322	CB	PRO	C	650	-83.490	-20.500	-2.457	1.00	53.46
17323	CG	PRO	C	650	-84.370	-19.497	-1.820	1.00	52.99
17324	CD	PRO	C	650	-83.456	-18.338	-1.503	1.00	53.43
17325	C	PRO	C	650	-81.004	-20.780	-2.603	1.00	53.75
17326	O	PRO	C	650	-80.548	-21.925	-2.594	1.00	53.62
17327	N	GLU	C	651	-80.519	-19.829	-3.388	1.00	53.94
17328	CA	GLU	C	651	-79.435	-20.122	-4.312	1.00	54.28
17329	CB	GLU	C	651	-79.485	-19.166	-5.506	1.00	54.69
17330	CG	GLU	C	651	-79.984	-17.767	-5.166	1.00	56.36

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**FIGURE 3 MD**

A	B	C	D	E	F	G	H	I	J
17331	CD	GLU	C	651	-81.499	-17.698	-5.036	1.00	58.57
17332	OE1	GLU	C	651	-82.025	-16.628	-4.646	1.00	59.40
17333	OE2	GLU	C	651	-82.169	-18.714	-5.335	1.00	59.57
17334	C	GLU	C	651	-78.065	-20.076	-3.636	1.00	54.06
17335	O	GLU	C	651	-77.039	-20.329	-4.276	1.00	54.13
17336	N	ASP	C	652	-78.039	-19.750	-2.347	1.00	53.63
17337	CA	ASP	C	652	-76.768	-19.721	-1.626	1.00	53.20
17338	CB	ASP	C	652	-76.393	-18.299	-1.180	1.00	53.09
17339	CG	ASP	C	652	-74.964	-18.204	-0.671	1.00	53.49
17340	OD1	ASP	C	652	-74.409	-17.082	-0.630	1.00	52.38
17341	OD2	ASP	C	652	-74.308	-19.198	-0.287	1.00	55.11
17342	C	ASP	C	652	-76.764	-20.689	-0.459	1.00	52.74
17343	O	ASP	C	652	-76.537	-21.877	-0.650	1.00	52.89
17344	N	ASN	C	653	-77.058	-20.195	0.740	1.00	52.38
17345	CA	ASN	C	653	-76.958	-21.015	1.947	1.00	51.91
17346	CB	ASN	C	653	-75.732	-20.560	2.746	1.00	51.79
17347	CG	ASN	C	653	-75.163	-21.652	3.633	1.00	51.84
17348	OD1	ASN	C	653	-75.298	-22.846	3.345	1.00	50.92
17349	ND2	ASN	C	653	-74.511	-21.242	4.722	1.00	51.55
17350	C	ASN	C	653	-78.197	-21.036	2.858	1.00	51.68
17351	O	ASN	C	653	-78.134	-21.541	3.974	1.00	51.25
17352	N	LEU	C	654	-79.323	-20.509	2.381	1.00	51.80
17353	CA	LEU	C	654	-80.551	-20.457	3.188	1.00	51.68
17354	CB	LEU	C	654	-81.763	-20.065	2.332	1.00	51.72
17355	CG	LEU	C	654	-83.106	-19.868	3.052	1.00	51.87
17356	CD1	LEU	C	654	-84.130	-19.231	2.120	1.00	51.14
17357	CD2	LEU	C	654	-82.949	-19.028	4.314	1.00	50.32
17358	C	LEU	C	654	-80.852	-21.739	3.965	1.00	51.39
17359	O	LEU	C	654	-81.305	-21.686	5.104	1.00	51.54
17360	N	ASP	C	655	-80.593	-22.886	3.355	1.00	51.05
17361	CA	ASP	C	655	-80.874	-24.168	3.998	1.00	50.87
17362	CB	ASP	C	655	-80.578	-25.345	3.053	1.00	51.10
17363	CG	ASP	C	655	-81.760	-25.680	2.161	1.00	52.25
17364	OD1	ASP	C	655	-82.465	-24.714	1.761	1.00	52.48
17365	OD2	ASP	C	655	-82.058	-26.860	1.827	1.00	53.32
17366	C	ASP	C	655	-80.147	-24.373	5.319	1.00	50.12
17367	O	ASP	C	655	-80.720	-24.894	6.279	1.00	50.29
17368	N	HIS	C	656	-78.882	-23.999	5.384	1.00	49.10
17369	CA	HIS	C	656	-78.208	-24.179	6.657	1.00	48.21
17370	CB	HIS	C	656	-76.698	-24.334	6.535	1.00	47.87
17371	CG	HIS	C	656	-76.060	-24.652	7.844	1.00	48.13
17372	ND1	HIS	C	656	-76.313	-25.826	8.519	1.00	48.39
17373	CE1	HIS	C	656	-75.669	-25.814	9.671	1.00	48.27
17374	NE2	HIS	C	656	-75.019	-24.667	9.774	1.00	48.51
17375	CD2	HIS	C	656	-75.264	-23.913	8.653	1.00	48.48
17376	C	HIS	C	656	-78.573	-23.069	7.647	1.00	47.37
17377	O	HIS	C	656	-78.608	-23.291	8.852	1.00	46.92
17378	N	TYR	C	657	-78.830	-21.875	7.122	1.00	46.50
17379	CA	TYR	C	657	-79.300	-20.771	7.939	1.00	45.81
17380	CB	TYR	C	657	-79.815	-19.648	7.067	1.00	45.25
17381	CG	TYR	C	657	-78.849	-18.536	6.805	1.00	43.24

**REPLACEMENT SHEET**  
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**FIGURE 3 ME**

A	B	C	D	E	F	G	H	I	J
17382	CD1	TYR	C	657	-78.766	-17.443	7.660	1.00	41.96
17383	CE1	TYR	C	657	-77.898	-16.411	7.404	1.00	39.72
17384	CZ	TYR	C	657	-77.112	-16.464	6.282	1.00	40.47
17385	OH	TYR	C	657	-76.239	-15.455	5.988	1.00	41.83
17386	CE2	TYR	C	657	-77.187	-17.533	5.425	1.00	40.94
17387	CD2	TYR	C	657	-78.054	-18.550	5.685	1.00	40.78
17388	C	TYR	C	657	-80.469	-21.254	8.748	1.00	45.87
17389	O	TYR	C	657	-80.565	-20.961	9.930	1.00	46.43
17390	N	ARG	C	658	-81.356	-21.994	8.094	1.00	45.67
17391	CA	ARG	C	658	-82.578	-22.486	8.710	1.00	45.95
17392	CB	ARG	C	658	-83.594	-22.696	7.631	1.00	46.28
17393	CG	ARG	C	658	-84.217	-21.740	6.844	1.00	49.14
17394	CD	ARG	C	658	-85.595	-22.064	6.211	1.00	53.51
17395	NE	ARG	C	658	-85.507	-23.075	5.154	1.00	56.60
17396	CZ	ARG	C	658	-86.363	-23.193	4.136	1.00	57.79
17397	NH1	ARG	C	658	-87.397	-22.363	4.020	1.00	56.87
17398	NH2	ARG	C	658	-86.183	-24.152	3.232	1.00	57.59
17399	C	ARG	C	658	-82.364	-23.675	9.627	1.00	45.54
17400	O	ARG	C	658	-83.191	-23.934	10.508	1.00	45.95
17401	N	ASN	C	659	-81.275	-24.411	9.417	1.00	44.74
17402	CA	ASN	C	659	-81.036	-25.635	10.176	1.00	44.08
17403	CB	ASN	C	659	-80.447	-26.724	9.272	1.00	44.64
17404	CG	ASN	C	659	-81.224	-28.033	9.352	1.00	46.95
17405	OD1	ASN	C	659	-82.133	-28.278	8.542	1.00	49.62
17406	ND2	ASN	C	659	-80.877	-28.882	10.327	1.00	47.89
17407	C	ASN	C	659	-80.141	-25.434	11.382	1.00	42.91
17408	O	ASN	C	659	-79.922	-26.354	12.171	1.00	42.51
17409	N	SER	C	660	-79.623	-24.227	11.534	1.00	41.70
17410	CA	SER	C	660	-78.737	-23.962	12.648	1.00	40.66
17411	CB	SER	C	660	-77.410	-23.428	12.128	1.00	40.52
17412	OG	SER	C	660	-77.629	-22.383	11.198	1.00	40.66
17413	C	SER	C	660	-79.327	-23.003	13.685	1.00	40.04
17414	O	SER	C	660	-78.578	-22.306	14.360	1.00	39.96
17415	N	THR	C	661	-80.655	-22.943	13.797	1.00	39.09
17416	CA	THR	C	661	-81.268	-22.085	14.811	1.00	38.03
17417	CB	THR	C	661	-82.651	-21.556	14.384	1.00	37.96
17418	OG1	THR	C	661	-83.595	-22.625	14.403	1.00	36.52
17419	CG2	THR	C	661	-82.645	-21.050	12.935	1.00	37.45
17420	C	THR	C	661	-81.429	-22.900	16.071	1.00	37.79
17421	O	THR	C	661	-81.553	-24.124	16.002	1.00	37.47
17422	N	VAL	C	662	-81.454	-22.238	17.223	1.00	37.13
17423	CA	VAL	C	662	-81.608	-22.985	18.462	1.00	36.62
17424	CB	VAL	C	662	-80.973	-22.272	19.710	1.00	36.83
17425	CG1	VAL	C	662	-79.942	-21.246	19.294	1.00	34.84
17426	CG2	VAL	C	662	-82.033	-21.661	20.611	1.00	35.45
17427	C	VAL	C	662	-83.070	-23.278	18.691	1.00	36.93
17428	O	VAL	C	662	-83.415	-24.280	19.310	1.00	37.33
17429	N	MET	C	663	-83.935	-22.405	18.186	1.00	36.78
17430	CA	MET	C	663	-85.360	-22.594	18.354	1.00	36.89
17431	CB	MET	C	663	-86.158	-21.560	17.547	1.00	36.76
17432	CG	MET	C	663	-86.341	-20.212	18.227	1.00	35.06

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 MF**

A	B	C	D	E	F	G	H	I	J
17433	SD	MET	C	663	-84.846	-19.194	18.177	1.00	35.84
17434	CE	MET	C	663	-84.752	-18.696	16.489	1.00	33.06
17435	C	MET	C	663	-85.745	-23.991	17.901	1.00	37.82
17436	O	MET	C	663	-86.563	-24.653	18.542	1.00	37.81
17437	N	SER	C	664	-85.164	-24.434	16.785	1.00	38.23
17438	CA	SER	C	664	-85.488	-25.742	16.245	1.00	38.98
17439	CB	SER	C	664	-84.933	-25.914	14.823	1.00	39.11
17440	OG	SER	C	664	-83.603	-26.398	14.846	1.00	40.80
17441	C	SER	C	664	-85.023	-26.867	17.174	1.00	39.18
17442	O	SER	C	664	-85.478	-28.007	17.063	1.00	39.51
17443	N	ARG	C	665	-84.141	-26.553	18.114	1.00	39.11
17444	CA	ARG	C	665	-83.720	-27.572	19.072	1.00	39.15
17445	CB	ARG	C	665	-82.228	-27.470	19.368	1.00	39.15
17446	CG	ARG	C	665	-81.342	-27.778	18.183	1.00	40.16
17447	CD	ARG	C	665	-79.919	-27.302	18.347	1.00	41.92
17448	NE	ARG	C	665	-79.079	-27.770	17.256	1.00	44.94
17449	CZ	ARG	C	665	-77.992	-28.514	17.413	1.00	46.14
17450	NH1	ARG	C	665	-77.605	-28.882	18.631	1.00	44.85
17451	NH2	ARG	C	665	-77.290	-28.891	16.346	1.00	47.15
17452	C	ARG	C	665	-84.509	-27.516	20.382	1.00	38.90
17453	O	ARG	C	665	-84.120	-28.159	21.351	1.00	38.81
17454	N	ALA	C	666	-85.628	-26.791	20.390	1.00	38.39
17455	CA	ALA	C	666	-86.407	-26.563	21.611	1.00	38.76
17456	CB	ALA	C	666	-87.659	-25.746	21.305	1.00	38.34
17457	C	ALA	C	666	-86.776	-27.789	22.453	1.00	39.08
17458	O	ALA	C	666	-86.478	-27.836	23.641	1.00	38.98
17459	N	GLU	C	667	-87.440	-28.760	21.836	1.00	39.50
17460	CA	GLU	C	667	-87.873	-29.976	22.514	1.00	40.65
17461	CB	GLU	C	667	-88.408	-30.972	21.471	1.00	41.61
17462	CG	GLU	C	667	-88.745	-32.358	22.006	1.00	44.39
17463	CD	GLU	C	667	-90.028	-32.388	22.815	1.00	48.67
17464	OE1	GLU	C	667	-90.139	-33.247	23.720	1.00	50.22
17465	OE2	GLU	C	667	-90.929	-31.559	22.545	1.00	50.72
17466	C	GLU	C	667	-86.790	-30.632	23.386	1.00	40.22
17467	O	GLU	C	667	-87.086	-31.230	24.414	1.00	40.14
17468	N	ASN	C	668	-85.537	-30.516	22.971	1.00	40.21
17469	CA	ASN	C	668	-84.435	-31.109	23.713	1.00	40.53
17470	CB	ASN	C	668	-83.204	-31.267	22.810	1.00	40.59
17471	CG	ASN	C	668	-83.375	-32.380	21.780	1.00	41.30
17472	OD1	ASN	C	668	-84.167	-33.307	21.972	1.00	41.08
17473	ND2	ASN	C	668	-82.626	-32.296	20.683	1.00	41.87
17474	C	ASN	C	668	-84.068	-30.395	25.022	1.00	40.58
17475	O	ASN	C	668	-83.437	-30.997	25.891	1.00	40.44
17476	N	PHE	C	669	-84.473	-29.132	25.182	1.00	40.23
17477	CA	PHE	C	669	-84.150	-28.393	26.411	1.00	39.62
17478	CB	PHE	C	669	-84.467	-26.897	26.290	1.00	39.21
17479	CG	PHE	C	669	-83.445	-26.097	25.512	1.00	37.04
17480	CD1	PHE	C	669	-83.406	-26.150	24.136	1.00	34.24
17481	CE1	PHE	C	669	-82.488	-25.404	23.421	1.00	33.36
17482	CZ	PHE	C	669	-81.601	-24.571	24.080	1.00	33.94
17483	CE2	PHE	C	669	-81.641	-24.493	25.464	1.00	34.78

**REPLACEMENT SHEET**  
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**FIGURE 3 MG**

A	B	C	D	E	F	G	H	I	J
17484	CD2	PHE	C	669	-82.558	-25.253	26.169	1.00	35.44
17485	C	PHE	C	669	-84.881	-28.965	27.617	1.00	40.05
17486	O	PHE	C	669	-84.696	-28.506	28.741	1.00	40.11
17487	N	LYS	C	670	-85.713	-29.970	27.382	1.00	40.60
17488	CA	LYS	C	670	-86.452	-30.631	28.450	1.00	41.14
17489	CB	LYS	C	670	-87.490	-31.589	27.861	1.00	41.62
17490	CG	LYS	C	670	-88.734	-30.912	27.277	1.00	43.99
17491	CD	LYS	C	670	-89.758	-31.942	26.814	1.00	46.81
17492	CE	LYS	C	670	-91.001	-31.283	26.206	1.00	48.27
17493	NZ	LYS	C	670	-91.853	-32.250	25.435	1.00	49.01
17494	C	LYS	C	670	-85.528	-31.419	29.376	1.00	41.34
17495	O	LYS	C	670	-85.868	-31.681	30.533	1.00	41.27
17496	N	GLN	C	671	-84.367	-31.817	28.871	1.00	41.18
17497	CA	GLN	C	671	-83.448	-32.589	29.693	1.00	41.40
17498	CB	GLN	C	671	-82.691	-33.620	28.855	1.00	42.05
17499	CG	GLN	C	671	-83.356	-34.066	27.565	1.00	44.40
17500	CD	GLN	C	671	-82.400	-34.873	26.710	1.00	47.75
17501	OE1	GLN	C	671	-82.691	-35.160	25.549	1.00	50.22
17502	NE2	GLN	C	671	-81.250	-35.242	27.284	1.00	48.69
17503	C	GLN	C	671	-82.412	-31.717	30.384	1.00	40.78
17504	O	GLN	C	671	-81.516	-32.236	31.045	1.00	41.50
17505	N	VAL	C	672	-82.495	-30.403	30.226	1.00	39.33
17506	CA	VAL	C	672	-81.478	-29.549	30.833	1.00	38.19
17507	CB	VAL	C	672	-80.542	-28.961	29.768	1.00	38.30
17508	CG1	VAL	C	672	-79.882	-30.075	28.934	1.00	36.38
17509	CG2	VAL	C	672	-81.313	-27.976	28.882	1.00	37.82
17510	C	VAL	C	672	-82.057	-28.387	31.620	1.00	37.37
17511	O	VAL	C	672	-83.206	-28.031	31.442	1.00	37.61
17512	N	GLU	C	673	-81.259	-27.822	32.518	1.00	36.29
17513	CA	GLU	C	673	-81.635	-26.591	33.205	1.00	35.13
17514	CB	GLU	C	673	-81.137	-26.602	34.641	1.00	35.55
17515	CG	GLU	C	673	-81.748	-27.713	35.474	1.00	40.14
17516	CD	GLU	C	673	-80.782	-28.223	36.524	1.00	44.05
17517	OE1	GLU	C	673	-80.411	-27.437	37.418	1.00	46.78
17518	OE2	GLU	C	673	-80.376	-29.399	36.443	1.00	46.49
17519	C	GLU	C	673	-80.975	-25.457	32.426	1.00	32.91
17520	O	GLU	C	673	-79.753	-25.409	32.315	1.00	32.53
17521	N	TYR	C	674	-81.795	-24.561	31.891	1.00	30.56
17522	CA	TYR	C	674	-81.354	-23.462	31.042	1.00	28.55
17523	CB	TYR	C	674	-82.203	-23.496	29.777	1.00	28.68
17524	CG	TYR	C	674	-81.799	-22.619	28.620	1.00	27.46
17525	CD1	TYR	C	674	-80.477	-22.501	28.220	1.00	27.52
17526	CE1	TYR	C	674	-80.129	-21.718	27.117	1.00	26.33
17527	CZ	TYR	C	674	-81.114	-21.069	26.404	1.00	25.65
17528	OH	TYR	C	674	-80.791	-20.293	25.309	1.00	26.32
17529	CE2	TYR	C	674	-82.423	-21.172	26.787	1.00	26.23
17530	CD2	TYR	C	674	-82.759	-21.945	27.887	1.00	28.21
17531	C	TYR	C	674	-81.584	-22.108	31.674	1.00	27.22
17532	O	TYR	C	674	-82.644	-21.855	32.225	1.00	26.63
17533	N	LEU	C	675	-80.598	-21.230	31.572	1.00	26.37
17534	CA	LEU	C	675	-80.766	-19.844	32.000	1.00	26.14

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 MH**

A	B	C	D	E	F	G	H	I	J
17535	CB	LEU	C	675	-79.854	-19.479	33.176	1.00	25.90
17536	CG	LEU	C	675	-79.814	-18.010	33.651	1.00	25.75
17537	CD1	LEU	C	675	-81.192	-17.476	34.109	1.00	23.89
17538	CD2	LEU	C	675	-78.801	-17.849	34.762	1.00	23.32
17539	C	LEU	C	675	-80.516	-18.947	30.791	1.00	26.05
17540	O	LEU	C	675	-79.430	-18.948	30.224	1.00	25.78
17541	N	LEU	C	676	-81.551	-18.199	30.414	1.00	25.92
17542	CA	LEU	C	676	-81.547	-17.303	29.263	1.00	26.02
17543	CB	LEU	C	676	-82.843	-17.524	28.471	1.00	25.45
17544	CG	LEU	C	676	-82.988	-16.741	27.177	1.00	25.45
17545	CD1	LEU	C	676	-84.319	-17.043	26.501	1.00	24.33
17546	CD2	LEU	C	676	-81.837	-17.036	26.271	1.00	23.72
17547	C	LEU	C	676	-81.463	-15.830	29.705	1.00	26.01
17548	O	LEU	C	676	-82.329	-15.366	30.429	1.00	26.52
17549	N	ILE	C	677	-80.443	-15.091	29.267	1.00	25.95
17550	CA	ILE	C	677	-80.273	-13.703	29.732	1.00	25.55
17551	CB	ILE	C	677	-79.085	-13.584	30.744	1.00	25.04
17552	CG1	ILE	C	677	-79.263	-14.532	31.939	1.00	24.66
17553	CD1	ILE	C	677	-78.014	-14.600	32.855	1.00	21.13
17554	CG2	ILE	C	677	-78.936	-12.157	31.230	1.00	24.45
17555	C	ILE	C	677	-80.017	-12.749	28.576	1.00	25.74
17556	O	ILE	C	677	-79.213	-13.041	27.708	1.00	26.49
17557	N	HIS	C	678	-80.657	-11.587	28.587	1.00	25.43
17558	CA	HIS	C	678	-80.484	-10.653	27.490	1.00	25.10
17559	CB	HIS	C	678	-81.390	-11.077	26.329	1.00	24.83
17560	CG	HIS	C	678	-80.800	-10.815	24.981	1.00	25.90
17561	ND1	HIS	C	678	-80.685	-11.796	24.018	1.00	25.45
17562	CE1	HIS	C	678	-80.113	-11.291	22.943	1.00	25.72
17563	NE2	HIS	C	678	-79.859	-10.014	23.167	1.00	28.31
17564	CD2	HIS	C	678	-80.283	-9.689	24.436	1.00	26.49
17565	C	HIS	C	678	-80.835	-9.221	27.892	1.00	25.15
17566	O	HIS	C	678	-81.818	-8.990	28.623	1.00	24.65
17567	N	GLY	C	679	-80.041	-8.268	27.398	1.00	25.01
17568	CA	GLY	C	679	-80.289	-6.856	27.617	1.00	25.20
17569	C	GLY	C	679	-81.352	-6.436	26.628	1.00	25.68
17570	O	GLY	C	679	-81.296	-6.852	25.474	1.00	26.27
17571	N	THR	C	680	-82.322	-5.625	27.053	1.00	25.67
17572	CA	THR	C	680	-83.406	-5.219	26.152	1.00	25.30
17573	CB	THR	C	680	-84.598	-4.632	26.924	1.00	25.15
17574	OG1	THR	C	680	-84.156	-3.505	27.700	1.00	27.27
17575	CG2	THR	C	680	-85.109	-5.604	27.952	1.00	23.02
17576	C	THR	C	680	-82.964	-4.206	25.114	1.00	25.68
17577	O	THR	C	680	-83.602	-4.054	24.088	1.00	25.49
17578	N	ALA	C	681	-81.886	-3.493	25.396	1.00	26.40
17579	CA	ALA	C	681	-81.379	-2.484	24.475	1.00	26.65
17580	CB	ALA	C	681	-81.199	-1.160	25.181	1.00	26.53
17581	C	ALA	C	681	-80.078	-2.942	23.815	1.00	26.92
17582	O	ALA	C	681	-79.188	-2.152	23.521	1.00	26.88
17583	N	ASP	C	682	-79.979	-4.238	23.591	1.00	27.70
17584	CA	ASP	C	682	-78.839	-4.781	22.880	1.00	28.44
17585	CB	ASP	C	682	-78.769	-6.280	23.087	1.00	27.96

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 MI**

A	B	C	D	E	F	G	H	I	J
17586	CG	ASP	C	682	-77.418	-6.859	22.733	1.00	29.07
17587	OD1	ASP	C	682	-77.059	-7.902	23.346	1.00	28.45
17588	OD2	ASP	C	682	-76.662	-6.367	21.855	1.00	28.76
17589	C	ASP	C	682	-78.996	-4.442	21.391	1.00	28.76
17590	O	ASP	C	682	-79.898	-4.943	20.696	1.00	28.70
17591	N	ASP	C	683	-78.110	-3.577	20.930	1.00	28.86
17592	CA	ASP	C	683	-78.116	-3.078	19.567	1.00	29.85
17593	CB	ASP	C	683	-77.472	-1.694	19.577	1.00	29.46
17594	CG	ASP	C	683	-76.040	-1.732	20.090	1.00	30.36
17595	OD1	ASP	C	683	-75.831	-1.561	21.316	1.00	30.25
17596	OD2	ASP	C	683	-75.057	-1.956	19.347	1.00	30.48
17597	C	ASP	C	683	-77.301	-3.976	18.652	1.00	30.02
17598	O	ASP	C	683	-77.297	-3.794	17.437	1.00	30.19
17599	N	ASN	C	684	-76.586	-4.923	19.249	1.00	30.21
17600	CA	ASN	C	684	-75.705	-5.821	18.516	1.00	30.64
17601	CB	ASN	C	684	-74.425	-6.048	19.310	1.00	31.17
17602	CG	ASN	C	684	-73.311	-6.646	18.486	1.00	30.89
17603	OD1	ASN	C	684	-72.141	-6.385	18.748	1.00	34.62
17604	ND2	ASN	C	684	-73.655	-7.450	17.504	1.00	28.71
17605	C	ASN	C	684	-76.449	-7.120	18.279	1.00	30.65
17606	O	ASN	C	684	-76.910	-7.377	17.168	1.00	31.03
17607	N	VAL	C	685	-76.561	-7.954	19.308	1.00	30.46
17608	CA	VAL	C	685	-77.431	-9.106	19.183	1.00	29.55
17609	CB	VAL	C	685	-76.821	-10.424	19.695	1.00	30.12
17610	CG1	VAL	C	685	-75.287	-10.408	19.554	1.00	28.95
17611	CG2	VAL	C	685	-77.222	-10.686	21.089	1.00	31.47
17612	C	VAL	C	685	-78.721	-8.703	19.869	1.00	29.67
17613	O	VAL	C	685	-78.827	-8.572	21.102	1.00	29.52
17614	N	HIS	C	686	-79.703	-8.459	19.019	1.00	29.13
17615	CA	HIS	C	686	-80.995	-7.959	19.423	1.00	28.34
17616	CB	HIS	C	686	-81.817	-7.666	18.168	1.00	27.30
17617	CG	HIS	C	686	-81.095	-6.768	17.212	1.00	26.65
17618	ND1	HIS	C	686	-81.297	-6.794	15.849	1.00	26.45
17619	CE1	HIS	C	686	-80.513	-5.902	15.269	1.00	24.28
17620	NE2	HIS	C	686	-79.800	-5.307	16.207	1.00	26.49
17621	CD2	HIS	C	686	-80.150	-5.828	17.430	1.00	26.11
17622	C	HIS	C	686	-81.720	-8.843	20.414	1.00	27.58
17623	O	HIS	C	686	-81.643	-10.053	20.341	1.00	28.29
17624	N	PHE	C	687	-82.400	-8.213	21.362	1.00	26.85
17625	CA	PHE	C	687	-83.188	-8.934	22.350	1.00	26.05
17626	CB	PHE	C	687	-83.982	-7.932	23.208	1.00	25.87
17627	CG	PHE	C	687	-84.810	-8.586	24.268	1.00	23.93
17628	CD1	PHE	C	687	-84.232	-8.972	25.468	1.00	23.35
17629	CE1	PHE	C	687	-84.968	-9.601	26.438	1.00	22.69
17630	CZ	PHE	C	687	-86.301	-9.861	26.217	1.00	24.49
17631	CE2	PHE	C	687	-86.892	-9.493	25.005	1.00	23.18
17632	CD2	PHE	C	687	-86.143	-8.860	24.045	1.00	20.96
17633	C	PHE	C	687	-84.124	-9.928	21.655	1.00	25.82
17634	O	PHE	C	687	-84.494	-10.967	22.208	1.00	25.58
17635	N	GLN	C	688	-84.510	-9.572	20.427	1.00	26.01
17636	CA	GLN	C	688	-85.330	-10.402	19.548	1.00	25.30

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**FIGURE 3 MJ**

A	B	C	D	E	F	G	H	I	J
17637	CB	GLN	C	688	-85.229	-9.846	18.120	1.00	25.52
17638	CG	GLN	C	688	-85.657	-10.801	16.992	1.00	25.68
17639	CD	GLN	C	688	-85.124	-10.356	15.619	1.00	28.02
17640	OE1	GLN	C	688	-83.984	-9.922	15.503	1.00	29.89
17641	NE2	GLN	C	688	-85.947	-10.472	14.593	1.00	27.05
17642	C	GLN	C	688	-84.852	-11.849	19.540	1.00	25.27
17643	O	GLN	C	688	-85.654	-12.780	19.593	1.00	24.54
17644	N	GLN	C	689	-83.536	-12.023	19.445	1.00	25.10
17645	CA	GLN	C	689	-82.945	-13.359	19.370	1.00	25.76
17646	CB	GLN	C	689	-81.419	-13.274	19.192	1.00	24.96
17647	CG	GLN	C	689	-81.019	-12.322	18.067	1.00	25.21
17648	CD	GLN	C	689	-80.000	-12.901	17.089	1.00	25.38
17649	OE1	GLN	C	689	-79.153	-12.171	16.570	1.00	27.69
17650	NE2	GLN	C	689	-80.099	-14.182	16.816	1.00	20.61
17651	C	GLN	C	689	-83.311	-14.251	20.559	1.00	26.02
17652	O	GLN	C	689	-83.661	-15.408	20.368	1.00	26.06
17653	N	SER	C	690	-83.217	-13.718	21.779	1.00	26.14
17654	CA	SER	C	690	-83.577	-14.484	22.962	1.00	26.18
17655	CB	SER	C	690	-82.993	-13.857	24.225	1.00	26.51
17656	OG	SER	C	690	-81.621	-14.170	24.368	1.00	28.14
17657	C	SER	C	690	-85.090	-14.513	23.085	1.00	26.21
17658	O	SER	C	690	-85.655	-15.447	23.665	1.00	26.92
17659	N	ALA	C	691	-85.750	-13.481	22.565	1.00	25.38
17660	CA	ALA	C	691	-87.203	-13.466	22.609	1.00	25.80
17661	CB	ALA	C	691	-87.771	-12.131	22.083	1.00	25.47
17662	C	ALA	C	691	-87.757	-14.626	21.794	1.00	26.13
17663	O	ALA	C	691	-88.828	-15.138	22.104	1.00	25.66
17664	N	GLN	C	692	-87.040	-15.014	20.737	1.00	26.50
17665	CA	GLN	C	692	-87.507	-16.121	19.890	1.00	27.59
17666	CB	GLN	C	692	-86.966	-16.053	18.447	1.00	27.83
17667	CG	GLN	C	692	-87.450	-14.848	17.606	1.00	28.11
17668	CD	GLN	C	692	-88.916	-14.910	17.205	1.00	29.70
17669	OE1	GLN	C	692	-89.616	-15.847	17.555	1.00	32.56
17670	NE2	GLN	C	692	-89.381	-13.900	16.452	1.00	30.95
17671	C	GLN	C	692	-87.158	-17.447	20.520	1.00	27.38
17672	O	GLN	C	692	-87.885	-18.403	20.354	1.00	27.47
17673	N	ILE	C	693	-86.053	-17.503	21.255	1.00	27.61
17674	CA	ILE	C	693	-85.713	-18.725	21.963	1.00	27.65
17675	CB	ILE	C	693	-84.362	-18.585	22.673	1.00	27.94
17676	CG1	ILE	C	693	-83.261	-18.320	21.663	1.00	28.29
17677	CD1	ILE	C	693	-81.881	-18.316	22.267	1.00	28.15
17678	CG2	ILE	C	693	-84.046	-19.841	23.471	1.00	27.85
17679	C	ILE	C	693	-86.795	-18.969	22.996	1.00	27.38
17680	O	ILE	C	693	-87.400	-20.036	23.049	1.00	27.53
17681	N	SER	C	694	-87.078	-17.954	23.804	1.00	27.00
17682	CA	SER	C	694	-88.065	-18.136	24.858	1.00	26.27
17683	CB	SER	C	694	-88.193	-16.873	25.705	1.00	26.31
17684	OG	SER	C	694	-88.964	-15.889	25.035	1.00	26.46
17685	C	SER	C	694	-89.419	-18.542	24.273	1.00	25.86
17686	O	SER	C	694	-90.097	-19.421	24.806	1.00	24.83
17687	N	LYS	C	695	-89.825	-17.897	23.185	1.00	25.80



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**FIGURE 3 MK**

A	B	C	D	E	F	G	H	I	J
17688	CA	LYS	C	695	-91.109	-18.256	22.587	1.00	26.44
17689	CB	LYS	C	695	-91.500	-17.304	21.459	1.00	25.78
17690	CG	LYS	C	695	-92.907	-17.555	20.937	1.00	25.78
17691	CD	LYS	C	695	-93.483	-16.335	20.241	1.00	24.53
17692	CE	LYS	C	695	-92.450	-15.682	19.306	1.00	26.21
17693	NZ	LYS	C	695	-92.287	-16.427	18.002	1.00	26.98
17694	C	LYS	C	695	-91.083	-19.721	22.121	1.00	27.05
17695	O	LYS	C	695	-91.994	-20.476	22.388	1.00	26.52
17696	N	ALA	C	696	-90.006	-20.126	21.462	1.00	28.36
17697	CA	ALA	C	696	-89.865	-21.514	21.061	1.00	29.59
17698	CB	ALA	C	696	-88.533	-21.722	20.366	1.00	29.41
17699	C	ALA	C	696	-90.000	-22.472	22.255	1.00	30.35
17700	O	ALA	C	696	-90.708	-23.468	22.181	1.00	31.17
17701	N	LEU	C	697	-89.337	-22.165	23.362	1.00	30.96
17702	CA	LEU	C	697	-89.378	-23.047	24.526	1.00	31.34
17703	CB	LEU	C	697	-88.329	-22.621	25.552	1.00	31.32
17704	CG	LEU	C	697	-86.858	-22.719	25.121	1.00	31.13
17705	CD1	LEU	C	697	-85.926	-22.158	26.197	1.00	31.53
17706	CD2	LEU	C	697	-86.500	-24.153	24.871	1.00	31.83
17707	C	LEU	C	697	-90.767	-23.139	25.167	1.00	31.83
17708	O	LEU	C	697	-91.170	-24.196	25.664	1.00	31.72
17709	N	VAL	C	698	-91.498	-22.030	25.164	1.00	32.33
17710	CA	VAL	C	698	-92.842	-22.016	25.718	1.00	32.77
17711	CB	VAL	C	698	-93.420	-20.600	25.686	1.00	32.93
17712	CG1	VAL	C	698	-94.941	-20.627	25.869	1.00	31.70
17713	CG2	VAL	C	698	-92.732	-19.714	26.746	1.00	33.84
17714	C	VAL	C	698	-93.731	-22.908	24.858	1.00	33.39
17715	O	VAL	C	698	-94.497	-23.747	25.354	1.00	32.98
17716	N	ASP	C	699	-93.612	-22.709	23.553	1.00	33.72
17717	CA	ASP	C	699	-94.399	-23.454	22.596	1.00	34.90
17718	CB	ASP	C	699	-94.157	-22.922	21.178	1.00	34.75
17719	CG	ASP	C	699	-94.846	-21.577	20.955	1.00	35.90
17720	OD1	ASP	C	699	-94.559	-20.876	19.952	1.00	35.34
17721	OD2	ASP	C	699	-95.703	-21.144	21.765	1.00	36.30
17722	C	ASP	C	699	-94.241	-24.976	22.715	1.00	35.14
17723	O	ASP	C	699	-95.145	-25.710	22.348	1.00	35.87
17724	N	VAL	C	700	-93.126	-25.456	23.263	1.00	35.25
17725	CA	VAL	C	700	-92.996	-26.895	23.462	1.00	35.16
17726	CB	VAL	C	700	-91.711	-27.475	22.851	1.00	35.42
17727	CG1	VAL	C	700	-91.681	-27.247	21.332	1.00	35.45
17728	CG2	VAL	C	700	-90.500	-26.889	23.517	1.00	35.54
17729	C	VAL	C	700	-93.087	-27.310	24.922	1.00	34.88
17730	O	VAL	C	700	-92.844	-28.472	25.253	1.00	35.23
17731	N	GLY	C	701	-93.427	-26.369	25.797	1.00	34.29
17732	CA	GLY	C	701	-93.599	-26.667	27.209	1.00	33.43
17733	C	GLY	C	701	-92.340	-26.962	28.011	1.00	33.58
17734	O	GLY	C	701	-92.350	-27.800	28.909	1.00	33.64
17735	N	VAL	C	702	-91.239	-26.285	27.719	1.00	33.38
17736	CA	VAL	C	702	-90.047	-26.548	28.504	1.00	33.15
17737	CB	VAL	C	702	-88.798	-26.788	27.635	1.00	33.65
17738	CG1	VAL	C	702	-88.959	-26.133	26.305	1.00	33.89

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**FIGURE 3 ML**

A	B	C	D	E	F	G	H	I	J
17739	CG2	VAL	C	702	-87.524	-26.329	28.350	1.00	32.46
17740	C	VAL	C	702	-89.804	-25.426	29.455	1.00	32.77
17741	O	VAL	C	702	-89.693	-24.278	29.047	1.00	33.10
17742	N	ASP	C	703	-89.769	-25.758	30.735	1.00	32.24
17743	CA	ASP	C	703	-89.481	-24.775	31.743	1.00	31.92
17744	CB	ASP	C	703	-89.839	-25.293	33.128	1.00	32.34
17745	CG	ASP	C	703	-89.866	-24.176	34.157	1.00	33.18
17746	OD1	ASP	C	703	-89.185	-24.287	35.188	1.00	35.21
17747	OD2	ASP	C	703	-90.527	-23.137	33.996	1.00	32.34
17748	C	ASP	C	703	-88.003	-24.443	31.699	1.00	31.72
17749	O	ASP	C	703	-87.171	-25.328	31.441	1.00	31.69
17750	N	PHE	C	704	-87.686	-23.180	31.977	1.00	30.47
17751	CA	PHE	C	704	-86.319	-22.671	31.956	1.00	29.79
17752	CB	PHE	C	704	-85.893	-22.354	30.526	1.00	29.50
17753	CG	PHE	C	704	-86.694	-21.234	29.895	1.00	29.13
17754	CD1	PHE	C	704	-86.176	-19.959	29.809	1.00	28.22
17755	CE1	PHE	C	704	-86.924	-18.908	29.241	1.00	29.08
17756	CZ	PHE	C	704	-88.201	-19.140	28.772	1.00	28.41
17757	CE2	PHE	C	704	-88.733	-20.426	28.854	1.00	29.66
17758	CD2	PHE	C	704	-87.980	-21.460	29.425	1.00	29.03
17759	C	PHE	C	704	-86.316	-21.374	32.767	1.00	30.00
17760	O	PHE	C	704	-87.365	-20.923	33.225	1.00	30.00
17761	N	GLN	C	705	-85.151	-20.765	32.942	1.00	29.66
17762	CA	GLN	C	705	-85.083	-19.532	33.706	1.00	30.04
17763	CB	GLN	C	705	-84.028	-19.633	34.797	1.00	30.23
17764	CG	GLN	C	705	-84.073	-20.898	35.599	1.00	33.52
17765	CD	GLN	C	705	-85.252	-20.943	36.513	1.00	38.13
17766	OE1	GLN	C	705	-85.556	-19.950	37.174	1.00	41.13
17767	NE2	GLN	C	705	-85.929	-22.095	36.569	1.00	39.09
17768	C	GLN	C	705	-84.693	-18.412	32.780	1.00	29.39
17769	O	GLN	C	705	-83.908	-18.613	31.857	1.00	29.61
17770	N	ALA	C	706	-85.225	-17.223	33.040	1.00	28.88
17771	CA	ALA	C	706	-84.885	-16.062	32.231	1.00	27.87
17772	CB	ALA	C	706	-86.051	-15.688	31.325	1.00	27.66
17773	C	ALA	C	706	-84.516	-14.877	33.085	1.00	26.99
17774	O	ALA	C	706	-84.879	-14.800	34.252	1.00	27.04
17775	N	MET	C	707	-83.794	-13.947	32.480	1.00	26.11
17776	CA	MET	C	707	-83.530	-12.656	33.099	1.00	25.44
17777	CB	MET	C	707	-82.276	-12.693	33.961	1.00	25.00
17778	CG	MET	C	707	-81.984	-11.399	34.675	1.00	25.79
17779	SD	MET	C	707	-83.350	-10.765	35.649	1.00	26.16
17780	CE	MET	C	707	-83.436	-11.896	37.012	1.00	26.20
17781	C	MET	C	707	-83.356	-11.674	31.960	1.00	24.58
17782	O	MET	C	707	-82.564	-11.919	31.055	1.00	25.30
17783	N	TRP	C	708	-84.147	-10.613	31.948	1.00	23.19
17784	CA	TRP	C	708	-83.934	-9.580	30.966	1.00	22.70
17785	CB	TRP	C	708	-85.261	-9.058	30.368	1.00	22.20
17786	CG	TRP	C	708	-86.096	-8.244	31.314	1.00	21.68
17787	CD1	TRP	C	708	-85.885	-6.947	31.694	1.00	22.05
17788	NE1	TRP	C	708	-86.843	-6.559	32.600	1.00	21.32
17789	CE2	TRP	C	708	-87.702	-7.605	32.814	1.00	21.26

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**FIGURE 3 MM**

A	B	C	D	E	F	G	H	I	J
17790	CD2	TRP	C	708	-87.268	-8.676	32.021	1.00	21.80
17791	CE3	TRP	C	708	-87.985	-9.882	32.081	1.00	22.63
17792	CZ3	TRP	C	708	-89.088	-9.965	32.904	1.00	20.42
17793	CH2	TRP	C	708	-89.503	-8.880	33.651	1.00	21.01
17794	CZ2	TRP	C	708	-88.829	-7.687	33.617	1.00	21.36
17795	C	TRP	C	708	-83.229	-8.493	31.750	1.00	22.73
17796	O	TRP	C	708	-83.390	-8.421	32.977	1.00	22.31
17797	N	TYR	C	709	-82.421	-7.687	31.074	1.00	22.44
17798	CA	TYR	C	709	-81.810	-6.522	31.729	1.00	23.23
17799	CB	TYR	C	709	-80.284	-6.642	31.842	1.00	22.71
17800	CG	TYR	C	709	-79.877	-7.542	33.000	1.00	23.98
17801	CD1	TYR	C	709	-79.779	-7.046	34.305	1.00	24.20
17802	CE1	TYR	C	709	-79.423	-7.880	35.368	1.00	23.62
17803	CZ	TYR	C	709	-79.190	-9.216	35.126	1.00	24.37
17804	OH	TYR	C	709	-78.840	-10.061	36.143	1.00	25.39
17805	CE2	TYR	C	709	-79.279	-9.717	33.851	1.00	24.05
17806	CD2	TYR	C	709	-79.628	-8.885	32.800	1.00	23.27
17807	C	TYR	C	709	-82.261	-5.221	31.061	1.00	23.07
17808	O	TYR	C	709	-81.802	-4.854	29.972	1.00	23.48
17809	N	THR	C	710	-83.185	-4.543	31.713	1.00	23.18
17810	CA	THR	C	710	-83.740	-3.310	31.172	1.00	23.50
17811	CB	THR	C	710	-84.575	-2.617	32.218	1.00	23.16
17812	OG1	THR	C	710	-85.625	-3.490	32.656	1.00	22.78
17813	CG2	THR	C	710	-85.289	-1.428	31.594	1.00	22.97
17814	C	THR	C	710	-82.662	-2.325	30.732	1.00	24.18
17815	O	THR	C	710	-81.822	-1.929	31.543	1.00	23.64
17816	N	ASP	C	711	-82.702	-1.941	29.452	1.00	24.46
17817	CA	ASP	C	711	-81.825	-0.904	28.903	1.00	24.95
17818	CB	ASP	C	711	-82.046	0.427	29.611	1.00	25.38
17819	CG	ASP	C	711	-83.420	1.020	29.321	1.00	25.45
17820	OD1	ASP	C	711	-83.787	2.039	29.948	1.00	25.43
17821	OD2	ASP	C	711	-84.191	0.526	28.481	1.00	24.04
17822	C	ASP	C	711	-80.334	-1.209	28.849	1.00	25.77
17823	O	ASP	C	711	-79.517	-0.303	28.624	1.00	25.57
17824	N	GLU	C	712	-79.963	-2.466	29.077	1.00	26.14
17825	CA	GLU	C	712	-78.567	-2.830	28.956	1.00	26.35
17826	CB	GLU	C	712	-78.214	-3.959	29.921	1.00	26.53
17827	CG	GLU	C	712	-78.190	-3.542	31.385	1.00	27.05
17828	CD	GLU	C	712	-77.122	-2.507	31.678	1.00	27.01
17829	OE1	GLU	C	712	-77.472	-1.366	32.024	1.00	28.43
17830	OE2	GLU	C	712	-75.928	-2.824	31.546	1.00	28.74
17831	C	GLU	C	712	-78.309	-3.256	27.512	1.00	26.60
17832	O	GLU	C	712	-79.199	-3.769	26.852	1.00	26.39
17833	N	ASP	C	713	-77.097	-3.011	27.022	1.00	27.38
17834	CA	ASP	C	713	-76.722	-3.453	25.697	1.00	27.89
17835	CB	ASP	C	713	-75.939	-2.383	24.925	1.00	27.56
17836	CG	ASP	C	713	-74.608	-2.075	25.537	1.00	29.75
17837	OD1	ASP	C	713	-74.141	-0.940	25.322	1.00	30.11
17838	OD2	ASP	C	713	-73.951	-2.892	26.239	1.00	31.92
17839	C	ASP	C	713	-75.958	-4.768	25.788	1.00	28.33
17840	O	ASP	C	713	-75.948	-5.418	26.828	1.00	28.12

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FIGURE 3 MN

A	B	C	D	E	F	G	H	I	J
17841	N	HIS	C	714	-75.318	-5.146	24.689	1.00	28.83
17842	CA	HIS	C	714	-74.668	-6.444	24.576	1.00	28.96
17843	CB	HIS	C	714	-74.001	-6.578	23.222	1.00	28.89
17844	CG	HIS	C	714	-73.825	-7.994	22.791	1.00	29.25
17845	ND1	HIS	C	714	-74.833	-8.923	22.886	1.00	28.93
17846	CE1	HIS	C	714	-74.395	-10.089	22.445	1.00	30.34
17847	NE2	HIS	C	714	-73.142	-9.943	22.054	1.00	29.84
17848	CD2	HIS	C	714	-72.756	-8.645	22.275	1.00	29.24
17849	C	HIS	C	714	-73.656	-6.746	25.653	1.00	28.97
17850	O	HIS	C	714	-73.418	-7.907	25.980	1.00	28.89
17851	N	GLY	C	715	-73.041	-5.702	26.189	1.00	29.24
17852	CA	GLY	C	715	-72.060	-5.883	27.236	1.00	29.03
17853	C	GLY	C	715	-72.655	-6.055	28.631	1.00	28.99
17854	O	GLY	C	715	-71.976	-6.593	29.506	1.00	29.44
17855	N	ILE	C	716	-73.906	-5.627	28.832	1.00	28.74
17856	CA	ILE	C	716	-74.546	-5.643	30.150	1.00	28.60
17857	CB	ILE	C	716	-75.097	-7.061	30.482	1.00	28.61
17858	CG1	ILE	C	716	-76.012	-7.553	29.352	1.00	27.50
17859	CD1	ILE	C	716	-76.567	-8.976	29.526	1.00	24.05
17860	CG2	ILE	C	716	-75.850	-7.081	31.828	1.00	27.56
17861	C	ILE	C	716	-73.488	-5.180	31.155	1.00	29.55
17862	O	ILE	C	716	-73.229	-5.844	32.162	1.00	29.67
17863	N	ALA	C	717	-72.888	-4.028	30.859	1.00	30.13
17864	CA	ALA	C	717	-71.721	-3.519	31.579	1.00	30.84
17865	CB	ALA	C	717	-70.617	-3.146	30.601	1.00	32.01
17866	C	ALA	C	717	-71.929	-2.365	32.515	1.00	31.09
17867	O	ALA	C	717	-70.972	-1.892	33.079	1.00	30.83
17868	N	SER	C	718	-73.148	-1.867	32.655	1.00	31.83
17869	CA	SER	C	718	-73.378	-0.873	33.679	1.00	32.40
17870	CB	SER	C	718	-74.872	-0.600	33.812	1.00	32.62
17871	OG	SER	C	718	-75.432	-0.369	32.525	1.00	36.75
17872	C	SER	C	718	-72.862	-1.516	34.967	1.00	32.11
17873	O	SER	C	718	-72.781	-2.734	35.070	1.00	32.36
17874	N	SER	C	719	-72.544	-0.697	35.953	1.00	31.52
17875	CA	SER	C	719	-72.051	-1.187	37.220	1.00	31.73
17876	CB	SER	C	719	-71.735	-0.003	38.137	1.00	31.98
17877	OG	SER	C	719	-70.603	-0.283	38.913	1.00	33.29
17878	C	SER	C	719	-73.044	-2.107	37.920	1.00	30.80
17879	O	SER	C	719	-72.718	-3.211	38.321	1.00	30.97
17880	N	THR	C	720	-74.268	-1.647	38.072	1.00	30.15
17881	CA	THR	C	720	-75.241	-2.431	38.805	1.00	29.08
17882	CB	THR	C	720	-76.425	-1.559	39.178	1.00	28.68
17883	OG1	THR	C	720	-76.876	-0.883	38.011	1.00	29.40
17884	CG2	THR	C	720	-75.951	-0.421	40.044	1.00	28.86
17885	C	THR	C	720	-75.682	-3.669	38.048	1.00	28.58
17886	O	THR	C	720	-75.903	-4.717	38.656	1.00	28.42
17887	N	ALA	C	721	-75.796	-3.576	36.728	1.00	27.86
17888	CA	ALA	C	721	-76.220	-4.752	35.969	1.00	27.51
17889	CB	ALA	C	721	-76.701	-4.383	34.573	1.00	26.20
17890	C	ALA	C	721	-75.134	-5.826	35.929	1.00	27.48
17891	O	ALA	C	721	-75.423	-7.014	36.031	1.00	27.71

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FIGURE 3 MO

A	B	C	D	E	F	G	H	I	J
17892	N	HIS	C	722	-73.884	-5.399	35.804	1.00	27.93
17893	CA	HIS	C	722	-72.759	-6.323	35.762	1.00	28.17
17894	CB	HIS	C	722	-71.460	-5.543	35.564	1.00	28.11
17895	CG	HIS	C	722	-70.221	-6.339	35.837	1.00	27.63
17896	ND1	HIS	C	722	-69.750	-7.304	34.975	1.00	28.33
17897	CE1	HIS	C	722	-68.646	-7.830	35.471	1.00	28.63
17898	NE2	HIS	C	722	-68.389	-7.247	36.628	1.00	26.63
17899	CD2	HIS	C	722	-69.354	-6.306	36.875	1.00	26.02
17900	C	HIS	C	722	-72.701	-7.128	37.058	1.00	28.52
17901	O	HIS	C	722	-72.442	-8.324	37.050	1.00	29.60
17902	N	GLN	C	723	-72.954	-6.470	38.176	1.00	28.29
17903	CA	GLN	C	723	-72.929	-7.149	39.455	1.00	27.90
17904	CB	GLN	C	723	-72.910	-6.117	40.584	1.00	28.20
17905	CG	GLN	C	723	-71.681	-5.219	40.515	1.00	29.47
17906	CD	GLN	C	723	-71.570	-4.211	41.657	1.00	31.92
17907	OE1	GLN	C	723	-71.558	-4.583	42.829	1.00	35.27
17908	NE2	GLN	C	723	-71.454	-2.941	41.309	1.00	31.36
17909	C	GLN	C	723	-74.119	-8.113	39.556	1.00	27.19
17910	O	GLN	C	723	-73.969	-9.253	39.991	1.00	26.28
17911	N	HIS	C	724	-75.283	-7.651	39.110	1.00	26.35
17912	CA	HIS	C	724	-76.505	-8.445	39.140	1.00	25.52
17913	CB	HIS	C	724	-77.701	-7.599	38.709	1.00	25.20
17914	CG	HIS	C	724	-79.023	-8.157	39.137	1.00	22.05
17915	ND1	HIS	C	724	-79.711	-9.096	38.397	1.00	20.91
17916	CE1	HIS	C	724	-80.844	-9.392	39.008	1.00	19.99
17917	NE2	HIS	C	724	-80.909	-8.687	40.127	1.00	20.84
17918	CD2	HIS	C	724	-79.781	-7.910	40.230	1.00	19.60
17919	C	HIS	C	724	-76.461	-9.691	38.265	1.00	26.07
17920	O	HIS	C	724	-76.941	-10.749	38.656	1.00	26.47
17921	N	ILE	C	725	-75.896	-9.582	37.073	1.00	26.44
17922	CA	ILE	C	725	-75.903	-10.737	36.192	1.00	25.82
17923	CB	ILE	C	725	-75.534	-10.358	34.755	1.00	25.39
17924	CG1	ILE	C	725	-75.616	-11.601	33.850	1.00	24.74
17925	CD1	ILE	C	725	-75.653	-11.305	32.353	1.00	19.42
17926	CG2	ILE	C	725	-74.155	-9.741	34.712	1.00	25.19
17927	C	ILE	C	725	-74.976	-11.805	36.733	1.00	25.91
17928	O	ILE	C	725	-75.273	-12.998	36.669	1.00	26.39
17929	N	TYR	C	726	-73.839	-11.385	37.258	1.00	26.22
17930	CA	TYR	C	726	-72.905	-12.356	37.820	1.00	26.09
17931	CB	TYR	C	726	-71.484	-11.788	37.888	1.00	25.95
17932	CG	TYR	C	726	-70.842	-11.862	36.538	1.00	25.39
17933	CD1	TYR	C	726	-70.768	-10.742	35.727	1.00	26.52
17934	CE1	TYR	C	726	-70.207	-10.807	34.470	1.00	26.04
17935	CZ	TYR	C	726	-69.732	-12.019	34.000	1.00	27.86
17936	OH	TYR	C	726	-69.183	-12.076	32.736	1.00	31.21
17937	CE2	TYR	C	726	-69.800	-13.155	34.785	1.00	25.02
17938	CD2	TYR	C	726	-70.376	-13.074	36.038	1.00	25.01
17939	C	TYR	C	726	-73.389	-12.933	39.142	1.00	25.98
17940	O	TYR	C	726	-73.091	-14.079	39.473	1.00	25.65
17941	N	THR	C	727	-74.152	-12.151	39.893	1.00	26.17
17942	CA	THR	C	727	-74.722	-12.673	41.113	1.00	26.92

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FIGURE 3 MP

A	B	C	D	E	F	G	H	I	J
17943	CB	THR	C	727	-75.344	-11.554	41.938	1.00	27.07
17944	OG1	THR	C	727	-74.316	-10.635	42.327	1.00	28.30
17945	CG2	THR	C	727	-75.834	-12.089	43.262	1.00	26.08
17946	C	THR	C	727	-75.787	-13.696	40.743	1.00	26.93
17947	O	THR	C	727	-75.851	-14.775	41.292	1.00	27.40
17948	N	HIS	C	728	-76.612	-13.343	39.773	1.00	27.18
17949	CA	HIS	C	728	-77.702	-14.192	39.376	1.00	26.26
17950	CB	HIS	C	728	-78.578	-13.490	38.344	1.00	26.06
17951	CG	HIS	C	728	-79.934	-14.097	38.205	1.00	23.30
17952	ND1	HIS	C	728	-80.849	-14.101	39.232	1.00	22.47
17953	CE1	HIS	C	728	-81.948	-14.716	38.836	1.00	25.26
17954	NE2	HIS	C	728	-81.779	-15.106	37.584	1.00	23.59
17955	CD2	HIS	C	728	-80.517	-14.752	37.177	1.00	23.11
17956	C	HIS	C	728	-77.207	-15.494	38.822	1.00	26.77
17957	O	HIS	C	728	-77.769	-16.540	39.132	1.00	27.34
17958	N	MET	C	729	-76.175	-15.437	37.988	1.00	27.12
17959	CA	MET	C	729	-75.628	-16.642	37.365	1.00	27.80
17960	CB	MET	C	729	-74.648	-16.286	36.234	1.00	27.69
17961	CG	MET	C	729	-75.263	-15.546	35.049	1.00	28.59
17962	SD	MET	C	729	-74.201	-15.459	33.591	1.00	30.95
17963	CE	MET	C	729	-72.729	-14.769	34.257	1.00	29.21
17964	C	MET	C	729	-74.908	-17.520	38.397	1.00	28.32
17965	O	MET	C	729	-74.869	-18.747	38.253	1.00	28.43
17966	N	SER	C	730	-74.314	-16.888	39.405	1.00	28.25
17967	CA	SER	C	730	-73.630	-17.619	40.453	1.00	29.48
17968	CB	SER	C	730	-72.883	-16.676	41.394	1.00	29.23
17969	OG	SER	C	730	-71.845	-16.002	40.707	1.00	30.09
17970	C	SER	C	730	-74.662	-18.420	41.226	1.00	29.98
17971	O	SER	C	730	-74.448	-19.586	41.524	1.00	29.82
17972	N	HIS	C	731	-75.798	-17.806	41.529	1.00	30.81
17973	CA	HIS	C	731	-76.848	-18.559	42.211	1.00	32.19
17974	CB	HIS	C	731	-78.043	-17.671	42.564	1.00	32.39
17975	CG	HIS	C	731	-77.797	-16.752	43.720	1.00	34.04
17976	ND1	HIS	C	731	-78.328	-15.476	43.789	1.00	35.75
17977	CE1	HIS	C	731	-77.952	-14.905	44.921	1.00	34.64
17978	NE2	HIS	C	731	-77.207	-15.768	45.593	1.00	35.49
17979	CD2	HIS	C	731	-77.092	-16.927	44.862	1.00	34.24
17980	C	HIS	C	731	-77.299	-19.740	41.346	1.00	32.33
17981	O	HIS	C	731	-77.464	-20.857	41.831	1.00	31.91
17982	N	PHE	C	732	-77.467	-19.499	40.053	1.00	32.72
17983	CA	PHE	C	732	-77.942	-20.559	39.177	1.00	33.08
17984	CB	PHE	C	732	-78.275	-20.011	37.789	1.00	32.39
17985	CG	PHE	C	732	-78.750	-21.053	36.823	1.00	30.50
17986	CD1	PHE	C	732	-80.094	-21.375	36.739	1.00	29.46
17987	CE1	PHE	C	732	-80.546	-22.336	35.850	1.00	30.06
17988	CZ	PHE	C	732	-79.639	-22.993	35.019	1.00	30.53
17989	CE2	PHE	C	732	-78.291	-22.675	35.092	1.00	29.92
17990	CD2	PHE	C	732	-77.858	-21.701	35.998	1.00	29.63
17991	C	PHE	C	732	-76.959	-21.743	39.100	1.00	33.93
17992	O	PHE	C	732	-77.356	-22.888	39.250	1.00	34.04
17993	N	ILE	C	733	-75.687	-21.469	38.863	1.00	35.09

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**FIGURE 3 MQ**

A	B	C	D	E	F	G	H	I	J
17994	CA	ILE	C	733	-74.708	-22.541	38.781	1.00	36.47
17995	CB	ILE	C	733	-73.334	-21.993	38.433	1.00	36.03
17996	CG1	ILE	C	733	-73.352	-21.375	37.038	1.00	36.78
17997	CD1	ILE	C	733	-73.673	-22.355	35.938	1.00	37.16
17998	CG2	ILE	C	733	-72.312	-23.105	38.511	1.00	36.12
17999	C	ILE	C	733	-74.618	-23.311	40.094	1.00	37.68
18000	O	ILE	C	733	-74.568	-24.539	40.097	1.00	37.96
18001	N	LYS	C	734	-74.614	-22.589	41.209	1.00	39.05
18002	CA	LYS	C	734	-74.487	-23.239	42.512	1.00	40.56
18003	CB	LYS	C	734	-74.345	-22.199	43.625	1.00	40.35
18004	CG	LYS	C	734	-73.340	-21.120	43.293	1.00	39.62
18005	CD	LYS	C	734	-72.498	-20.779	44.472	1.00	39.88
18006	CE	LYS	C	734	-73.333	-20.568	45.699	1.00	40.60
18007	NZ	LYS	C	734	-72.622	-21.094	46.881	1.00	41.45
18008	C	LYS	C	734	-75.613	-24.209	42.840	1.00	41.64
18009	O	LYS	C	734	-75.367	-25.308	43.330	1.00	42.54
18010	N	GLN	C	735	-76.846	-23.808	42.588	1.00	42.61
18011	CA	GLN	C	735	-77.975	-24.673	42.885	1.00	43.80
18012	CB	GLN	C	735	-79.298	-23.889	42.813	1.00	43.93
18013	CG	GLN	C	735	-80.478	-24.618	43.486	1.00	46.68
18014	CD	GLN	C	735	-81.636	-23.693	43.845	1.00	49.78
18015	OE1	GLN	C	735	-82.014	-23.587	45.020	1.00	50.01
18016	NE2	GLN	C	735	-82.210	-23.033	42.834	1.00	50.27
18017	C	GLN	C	735	-77.997	-25.883	41.943	1.00	43.79
18018	O	GLN	C	735	-78.464	-26.960	42.307	1.00	43.94
18019	N	CYS	C	736	-77.496	-25.700	40.729	1.00	43.82
18020	CA	CYS	C	736	-77.455	-26.783	39.764	1.00	44.07
18021	CB	CYS	C	736	-77.213	-26.217	38.370	1.00	44.15
18022	SG	CYS	C	736	-76.430	-27.305	37.152	1.00	45.75
18023	C	CYS	C	736	-76.374	-27.790	40.155	1.00	44.17
18024	O	CYS	C	736	-76.455	-28.968	39.814	1.00	44.51
18025	N	PHE	C	737	-75.382	-27.311	40.897	1.00	43.85
18026	CA	PHE	C	737	-74.290	-28.127	41.378	1.00	43.48
18027	CB	PHE	C	737	-72.997	-27.358	41.219	1.00	43.04
18028	CG	PHE	C	737	-72.486	-27.348	39.836	1.00	40.98
18029	CD1	PHE	C	737	-73.101	-28.112	38.864	1.00	39.10
18030	CE1	PHE	C	737	-72.633	-28.121	37.592	1.00	37.35
18031	CZ	PHE	C	737	-71.532	-27.363	37.263	1.00	39.57
18032	CE2	PHE	C	737	-70.905	-26.598	38.223	1.00	38.73
18033	CD2	PHE	C	737	-71.387	-26.592	39.503	1.00	39.14
18034	C	PHE	C	737	-74.463	-28.459	42.848	1.00	44.22
18035	O	PHE	C	737	-73.541	-28.962	43.501	1.00	44.19
18036	N	SER	C	738	-75.639	-28.172	43.380	1.00	44.96
18037	CA	SER	C	738	-75.876	-28.410	44.792	1.00	45.92
18038	CB	SER	C	738	-75.921	-29.916	45.084	1.00	46.15
18039	OG	SER	C	738	-76.830	-30.586	44.219	1.00	44.65
18040	C	SER	C	738	-74.777	-27.751	45.627	1.00	47.06
18041	O	SER	C	738	-74.360	-28.307	46.648	1.00	47.75
18042	N	LEU	C	739	-74.289	-26.586	45.197	1.00	47.53
18043	CA	LEU	C	739	-73.290	-25.862	45.983	1.00	48.35
18044	CB	LEU	C	739	-72.264	-25.170	45.090	1.00	48.05

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**FIGURE 3 MR**

A	B	C	D	E	F	G	H	I	J
18045	CG	LEU	C	739	-71.381	-26.056	44.218	1.00	47.85
18046	CD1	LEU	C	739	-70.391	-25.195	43.483	1.00	46.49
18047	CD2	LEU	C	739	-70.661	-27.136	45.048	1.00	48.24
18048	C	LEU	C	739	-73.953	-24.835	46.908	1.00	49.10
18049	O	LEU	C	739	-74.413	-23.778	46.458	1.00	49.35
18050	N	PRO	C	740	-73.984	-25.156	48.198	1.00	49.55
18051	CA	PRO	C	740	-74.608	-24.312	49.227	1.00	49.80
18052	CB	PRO	C	740	-74.296	-25.073	50.527	1.00	50.11
18053	CG	PRO	C	740	-74.110	-26.505	50.086	1.00	50.01
18054	CD	PRO	C	740	-73.399	-26.383	48.766	1.00	49.91
18055	C	PRO	C	740	-74.065	-22.873	49.312	1.00	49.76
18056	O	PRO	C	740	-72.926	-22.583	48.946	1.00	49.69
18057	O7	NAG	C1621		-69.324	24.781	23.484	1.00	77.15
18058	C7	NAG	C1621		-69.609	25.335	22.437	1.00	77.32
18059	C8	NAG	C1621		-68.637	25.427	21.299	1.00	77.63
18060	N2	NAG	C1621		-70.814	25.855	22.191	1.00	76.74
18061	C2	NAG	C1621		-71.897	25.849	23.162	1.00	76.77
18062	C1	NAG	C1621		-72.310	24.411	23.483	1.00	74.60
18063	C3	NAG	C1621		-71.539	26.601	24.442	1.00	77.28
18064	O3	NAG	C1621		-71.306	27.990	24.170	1.00	77.20
18065	C4	NAG	C1621		-72.695	26.489	25.427	1.00	78.05
18066	O4	NAG	C1621		-72.324	27.130	26.658	1.00	78.54
18067	C5	NAG	C1621		-73.094	25.023	25.647	1.00	77.85
18068	O5	NAG	C1621		-73.407	24.398	24.400	1.00	76.82
18069	C6	NAG	C1621		-74.296	24.902	26.587	1.00	78.69
18070	O6	NAG	C1621		-75.394	24.202	25.975	1.00	78.53
18071	O7	NAG	C2311		-45.119	20.326	4.123	1.00	86.50
18072	C7	NAG	C2311		-44.308	19.536	4.596	1.00	86.26
18073	C8	NAG	C2311		-43.692	19.775	5.943	1.00	86.73
18074	N2	NAG	C2311		-43.959	18.387	4.020	1.00	85.54
18075	C2	NAG	C2311		-44.431	17.941	2.719	1.00	85.11
18076	C1	NAG	C2311		-45.605	16.977	2.834	1.00	82.08
18077	C3	NAG	C2311		-44.838	19.103	1.819	1.00	85.85
18078	O3	NAG	C2311		-43.800	20.090	1.711	1.00	86.58
18079	C4	NAG	C2311		-45.187	18.534	0.452	1.00	86.28
18080	O4	NAG	C2311		-45.625	19.593	-0.408	1.00	86.86
18081	C5	NAG	C2311		-46.284	17.482	0.590	1.00	85.68
18082	O5	NAG	C2311		-45.899	16.472	1.529	1.00	84.80
18083	C6	NAG	C2311		-46.572	16.841	-0.763	1.00	86.43
18084	O6	NAG	C2311		-47.501	15.757	-0.613	1.00	86.77
18085	O7	NAG	C2411		-75.042	10.172	-2.240	1.00	55.28
18086	C7	NAG	C2411		-75.585	10.527	-1.211	1.00	55.28
18087	C8	NAG	C2411		-75.084	11.660	-0.359	1.00	55.62
18088	N2	NAG	C2411		-76.717	9.971	-0.818	1.00	55.77
18089	C2	NAG	C2411		-77.290	8.882	-1.569	1.00	55.90
18090	C1	NAG	C2411		-77.656	7.748	-0.640	1.00	54.04
18091	C3	NAG	C2411		-78.557	9.352	-2.254	1.00	58.50
18092	O3	NAG	C2411		-78.217	10.393	-3.177	1.00	60.48
18093	C4	NAG	C2411		-79.242	8.184	-2.960	1.00	57.98
18094	O4	NAG	C2411		-80.546	8.586	-3.368	1.00	61.94
18095	C5	NAG	C2411		-79.378	6.976	-2.034	1.00	57.21



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**FIGURE 3 MS**

A	B	C	D	E	F	G	H	I	J
18096	O5	NAG	C2411		-78.125	6.674	-1.437	1.00	54.85
18097	C6	NAG	C2411		-79.857	5.738	-2.785	1.00	57.15
18098	O6	NAG	C2411		-80.816	5.047	-1.985	1.00	57.43
18099	O7	NAG	C2412		-84.036	5.860	-2.398	1.00	72.47
18100	C7	NAG	C2412		-83.715	6.962	-2.822	1.00	73.43
18101	C8	NAG	C2412		-83.913	8.216	-2.018	1.00	72.70
18102	N2	NAG	C2412		-83.090	7.125	-3.991	1.00	73.75
18103	C2	NAG	C2412		-82.715	8.448	-4.452	1.00	74.18
18104	C1	NAG	C2412		-81.205	8.630	-4.581	1.00	71.93
18105	C3	NAG	C2412		-83.383	8.739	-5.788	1.00	75.49
18106	O3	NAG	C2412		-84.803	8.644	-5.651	1.00	75.59
18107	C4	NAG	C2412		-83.000	10.149	-6.210	1.00	76.52
18108	O4	NAG	C2412		-83.608	10.490	-7.457	1.00	80.35
18109	C5	NAG	C2412		-81.486	10.249	-6.315	1.00	75.48
18110	O5	NAG	C2412		-80.920	9.961	-5.032	1.00	73.95
18111	C6	NAG	C2412		-81.064	11.638	-6.789	1.00	75.01
18112	O6	NAG	C2412		-81.555	12.632	-5.880	1.00	74.46
18113	O6	MAN	C2413		-86.351	13.692	-8.034	1.00	93.60
18114	C6	MAN	C2413		-86.318	13.247	-9.396	1.00	92.70
18115	C5	MAN	C2413		-85.247	12.175	-9.548	1.00	91.67
18116	O5	MAN	C2413		-85.404	11.229	-8.490	1.00	90.56
18117	C4	MAN	C2413		-85.365	11.486	-10.905	1.00	91.36
18118	O4	MAN	C2413		-85.075	12.418	-11.949	1.00	92.46
18119	C3	MAN	C2413		-84.399	10.313	-11.010	1.00	90.86
18120	O3	MAN	C2413		-84.652	9.578	-12.211	1.00	91.25
18121	C2	MAN	C2413		-84.545	9.392	-9.811	1.00	90.25
18122	O2	MAN	C2413		-85.824	8.748	-9.848	1.00	89.98
18123	C1	MAN	C2413		-84.419	10.199	-8.528	1.00	88.38
18124	O6	MAN	C2414		-80.241	11.930	-11.940	1.00	99.01
18125	C6	MAN	C2414		-80.791	10.937	-12.810	1.00	98.42
18126	C5	MAN	C2414		-82.264	11.255	-13.029	1.00	97.98
18127	O5	MAN	C2414		-82.550	12.540	-12.479	1.00	97.59
18128	C4	MAN	C2414		-82.631	11.205	-14.509	1.00	97.88
18129	O4	MAN	C2414		-82.502	9.856	-14.966	1.00	97.78
18130	C3	MAN	C2414		-84.059	11.686	-14.745	1.00	97.54
18131	O3	MAN	C2414		-84.269	11.881	-16.144	1.00	97.99
18132	C2	MAN	C2414		-84.314	13.003	-14.031	1.00	97.34
18133	O2	MAN	C2414		-83.531	14.032	-14.649	1.00	97.01
18134	C1	MAN	C2414		-83.931	12.879	-12.564	1.00	96.30
18135	O7	NAG	C2931		-70.567	28.515	-2.283	1.00	81.63
18136	C7	NAG	C2931		-70.247	28.468	-1.106	1.00	80.91
18137	C8	NAG	C2931		-69.337	29.480	-0.477	1.00	81.17
18138	N2	NAG	C2931		-70.757	27.564	-0.280	1.00	79.93
18139	C2	NAG	C2931		-71.665	26.557	-0.785	1.00	79.07
18140	C1	NAG	C2931		-71.355	25.188	-0.191	1.00	77.34
18141	C3	NAG	C2931		-73.096	26.975	-0.471	1.00	79.10
18142	O3	NAG	C2931		-73.375	28.245	-1.078	1.00	79.59
18143	C4	NAG	C2931		-74.057	25.910	-0.964	1.00	79.26
18144	O4	NAG	C2931		-75.420	26.257	-0.675	1.00	79.01
18145	C5	NAG	C2931		-73.676	24.559	-0.376	1.00	78.61
18146	O5	NAG	C2931		-72.309	24.237	-0.674	1.00	78.29

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**FIGURE 3 MT**

A	B	C	D	E	F	G	H	I	J
18147	C6	NAG	C2931		-74.600	23.456	-0.894	1.00	78.34
18148	O6	NAG	C2931		-74.017	22.784	-2.020	1.00	77.59
18149	O7	NAG	C3331		-63.689	-19.851	-4.727	1.00	74.43
18150	C7	NAG	C3331		-63.690	-18.636	-4.805	1.00	73.65
18151	C8	NAG	C3331		-62.493	-17.871	-5.291	1.00	74.34
18152	N2	NAG	C3331		-64.780	-17.909	-4.552	1.00	72.43
18153	C2	NAG	C3331		-66.007	-18.533	-4.085	1.00	70.84
18154	C1	NAG	C3331		-66.710	-17.632	-3.082	1.00	67.96
18155	C3	NAG	C3331		-66.970	-18.879	-5.213	1.00	70.62
18156	O3	NAG	C3331		-66.363	-19.827	-6.102	1.00	71.81
18157	C4	NAG	C3331		-68.250	-19.480	-4.633	1.00	70.09
18158	O4	NAG	C3331		-69.255	-19.587	-5.653	1.00	69.60
18159	C5	NAG	C3331		-68.788	-18.652	-3.465	1.00	69.57
18160	O5	NAG	C3331		-67.764	-18.390	-2.505	1.00	69.44
18161	C6	NAG	C3331		-69.918	-19.382	-2.753	1.00	69.16
18162	O6	NAG	C3331		-69.339	-20.318	-1.841	1.00	68.15
18163	N	SER	D	13	-110.740	-42.363	47.327	1.00	61.36
18164	CA	SER	D	13	-110.386	-40.918	47.415	1.00	60.89
18165	CB	SER	D	13	-111.292	-40.205	48.428	1.00	60.96
18166	OG	SER	D	13	-111.799	-38.984	47.896	1.00	60.88
18167	C	SER	D	13	-108.908	-40.766	47.785	1.00	60.77
18168	O	SER	D	13	-108.553	-40.477	48.951	1.00	60.94
18169	N	ARG	D	14	-108.048	-40.983	46.789	1.00	60.00
18170	CA	ARG	D	14	-106.597	-40.869	46.975	1.00	59.08
18171	CB	ARG	D	14	-105.977	-42.260	47.149	1.00	59.38
18172	CG	ARG	D	14	-104.493	-42.396	46.898	1.00	60.79
18173	CD	ARG	D	14	-104.176	-43.165	45.625	1.00	64.29
18174	NE	ARG	D	14	-103.070	-44.107	45.797	1.00	66.91
18175	CZ	ARG	D	14	-101.994	-44.143	45.018	1.00	67.92
18176	NH1	ARG	D	14	-101.871	-43.288	44.013	1.00	67.83
18177	NH2	ARG	D	14	-101.039	-45.034	45.240	1.00	68.22
18178	C	ARG	D	14	-105.942	-40.037	45.857	1.00	57.85
18179	O	ARG	D	14	-104.736	-39.753	45.891	1.00	57.68
18180	N	LYS	D	15	-106.753	-39.639	44.878	1.00	56.24
18181	CA	LYS	D	15	-106.303	-38.729	43.833	1.00	54.85
18182	CB	LYS	D	15	-107.112	-38.919	42.556	1.00	55.33
18183	CG	LYS	D	15	-106.495	-39.829	41.516	1.00	56.61
18184	CD	LYS	D	15	-107.496	-40.065	40.380	1.00	58.88
18185	CE	LYS	D	15	-108.832	-40.572	40.922	1.00	59.93
18186	NZ	LYS	D	15	-109.924	-40.572	39.890	1.00	61.34
18187	C	LYS	D	15	-106.508	-37.296	44.300	1.00	53.25
18188	O	LYS	D	15	-107.446	-37.009	45.041	1.00	53.26
18189	N	THR	D	16	-105.625	-36.401	43.878	1.00	51.06
18190	CA	THR	D	16	-105.809	-34.980	44.147	1.00	48.79
18191	CB	THR	D	16	-104.599	-34.376	44.883	1.00	48.98
18192	OG1	THR	D	16	-103.392	-34.665	44.159	1.00	48.23
18193	CG2	THR	D	16	-104.384	-35.058	46.233	1.00	49.02
18194	C	THR	D	16	-105.968	-34.292	42.811	1.00	47.23
18195	O	THR	D	16	-105.633	-34.853	41.775	1.00	46.86
18196	N	TYR	D	17	-106.504	-33.082	42.834	1.00	45.40
18197	CA	TYR	D	17	-106.595	-32.276	41.634	1.00	43.29

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**FIGURE 3 MU**

A	B	C	D	E	F	G	H	I	J
18198	CB	TYR	D	17	-107.591	-31.146	41.877	1.00	42.92
18199	CG	TYR	D	17	-107.813	-30.211	40.708	1.00	41.77
18200	CD1	TYR	D	17	-108.774	-30.484	39.736	1.00	39.19
18201	CE1	TYR	D	17	-108.983	-29.624	38.683	1.00	38.15
18202	CZ	TYR	D	17	-108.224	-28.465	38.588	1.00	39.21
18203	OH	TYR	D	17	-108.399	-27.580	37.546	1.00	36.44
18204	CE2	TYR	D	17	-107.270	-28.179	39.541	1.00	39.84
18205	CD2	TYR	D	17	-107.072	-29.044	40.589	1.00	40.04
18206	C	TYR	D	17	-105.182	-31.736	41.387	1.00	42.57
18207	O	TYR	D	17	-104.624	-31.033	42.228	1.00	42.04
18208	N	THR	D	18	-104.598	-32.090	40.247	1.00	41.76
18209	CA	THR	D	18	-103.219	-31.709	39.939	1.00	41.00
18210	CB	THR	D	18	-102.514	-32.825	39.187	1.00	40.40
18211	OG1	THR	D	18	-103.228	-33.053	37.972	1.00	40.49
18212	CG2	THR	D	18	-102.598	-34.114	39.935	1.00	40.17
18213	C	THR	D	18	-103.117	-30.500	39.038	1.00	40.59
18214	O	THR	D	18	-104.111	-29.972	38.569	1.00	40.76
18215	N	LEU	D	19	-101.878	-30.118	38.759	1.00	40.02
18216	CA	LEU	D	19	-101.592	-29.002	37.889	1.00	39.77
18217	CB	LEU	D	19	-100.111	-28.637	37.974	1.00	39.21
18218	CG	LEU	D	19	-99.648	-27.489	37.095	1.00	37.71
18219	CD1	LEU	D	19	-100.422	-26.230	37.454	1.00	35.69
18220	CD2	LEU	D	19	-98.144	-27.279	37.279	1.00	37.86
18221	C	LEU	D	19	-101.959	-29.364	36.470	1.00	39.98
18222	O	LEU	D	19	-102.630	-28.601	35.784	1.00	39.95
18223	N	THR	D	20	-101.514	-30.535	36.026	1.00	40.46
18224	CA	THR	D	20	-101.875	-30.988	34.698	1.00	41.26
18225	CB	THR	D	20	-101.332	-32.419	34.420	1.00	41.48
18226	OG1	THR	D	20	-99.923	-32.461	34.690	1.00	43.06
18227	CG2	THR	D	20	-101.372	-32.730	32.938	1.00	41.78
18228	C	THR	D	20	-103.395	-30.921	34.594	1.00	41.40
18229	O	THR	D	20	-103.926	-30.375	33.636	1.00	42.00
18230	N	ASP	D	21	-104.101	-31.419	35.604	1.00	41.61
18231	CA	ASP	D	21	-105.559	-31.373	35.570	1.00	42.18
18232	CB	ASP	D	21	-106.169	-31.803	36.912	1.00	42.36
18233	CG	ASP	D	21	-105.920	-33.278	37.234	1.00	43.15
18234	OD1	ASP	D	21	-105.803	-34.096	36.290	1.00	43.47
18235	OD2	ASP	D	21	-105.830	-33.709	38.407	1.00	43.92
18236	C	ASP	D	21	-106.039	-29.977	35.204	1.00	42.09
18237	O	ASP	D	21	-106.884	-29.814	34.319	1.00	41.58
18238	N	TYR	D	22	-105.495	-28.972	35.895	1.00	42.01
18239	CA	TYR	D	22	-105.861	-27.586	35.649	1.00	41.53
18240	CB	TYR	D	22	-105.252	-26.665	36.710	1.00	41.76
18241	CG	TYR	D	22	-105.377	-25.196	36.396	1.00	39.80
18242	CD1	TYR	D	22	-106.612	-24.614	36.140	1.00	39.04
18243	CE1	TYR	D	22	-106.717	-23.265	35.939	1.00	38.61
18244	CZ	TYR	D	22	-105.574	-22.490	35.815	1.00	38.02
18245	OH	TYR	D	22	-105.641	-21.142	35.529	1.00	38.34
18246	CE2	TYR	D	22	-104.348	-23.050	36.070	1.00	37.72
18247	CD2	TYR	D	22	-104.254	-24.386	36.357	1.00	39.58
18248	C	TYR	D	22	-105.405	-27.147	34.287	1.00	41.60

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**FIGURE 3 MV**

A	B	C	D	E	F	G	H	I	J
18249	O	TYR	D	22	-106.168	-26.553	33.540	1.00	41.54
18250	N	LEU	D	23	-104.162	-27.455	33.949	1.00	42.15
18251	CA	LEU	D	23	-103.614	-27.034	32.658	1.00	42.86
18252	CB	LEU	D	23	-102.097	-27.209	32.617	1.00	42.53
18253	CG	LEU	D	23	-101.334	-26.426	33.688	1.00	42.98
18254	CD1	LEU	D	23	-99.842	-26.401	33.402	1.00	40.18
18255	CD2	LEU	D	23	-101.895	-25.010	33.790	1.00	42.48
18256	C	LEU	D	23	-104.252	-27.732	31.465	1.00	43.63
18257	O	LEU	D	23	-104.326	-27.165	30.384	1.00	43.71
18258	N	LYS	D	24	-104.718	-28.962	31.656	1.00	44.61
18259	CA	LYS	D	24	-105.307	-29.703	30.547	1.00	45.83
18260	CB	LYS	D	24	-104.703	-31.103	30.447	1.00	45.69
18261	CG	LYS	D	24	-103.186	-31.110	30.303	1.00	45.41
18262	CD	LYS	D	24	-102.735	-30.517	28.978	1.00	44.15
18263	CE	LYS	D	24	-101.218	-30.572	28.859	1.00	43.82
18264	NZ	LYS	D	24	-100.717	-30.178	27.505	1.00	44.06
18265	C	LYS	D	24	-106.827	-29.779	30.626	1.00	46.53
18266	O	LYS	D	24	-107.458	-30.475	29.835	1.00	46.70
18267	N	ASN	D	25	-107.410	-29.064	31.582	1.00	47.48
18268	CA	ASN	D	25	-108.861	-29.017	31.719	1.00	48.45
18269	CB	ASN	D	25	-109.482	-28.246	30.558	1.00	48.72
18270	CG	ASN	D	25	-110.641	-27.378	30.999	1.00	51.15
18271	OD1	ASN	D	25	-111.797	-27.803	30.980	1.00	52.66
18272	ND2	ASN	D	25	-110.335	-26.144	31.413	1.00	53.94
18273	C	ASN	D	25	-109.437	-30.422	31.780	1.00	48.69
18274	O	ASN	D	25	-110.334	-30.786	31.017	1.00	48.74
18275	N	THR	D	26	-108.896	-31.211	32.693	1.00	48.91
18276	CA	THR	D	26	-109.313	-32.583	32.857	1.00	49.28
18277	CB	THR	D	26	-108.374	-33.283	33.827	1.00	49.12
18278	OG1	THR	D	26	-107.087	-33.419	33.212	1.00	48.89
18279	CG2	THR	D	26	-108.821	-34.718	34.060	1.00	49.93
18280	C	THR	D	26	-110.743	-32.621	33.360	1.00	49.63
18281	O	THR	D	26	-111.600	-33.295	32.786	1.00	49.55
18282	N	TYR	D	27	-111.001	-31.889	34.433	1.00	49.75
18283	CA	TYR	D	27	-112.341	-31.832	34.976	1.00	50.33
18284	CB	TYR	D	27	-112.300	-31.858	36.497	1.00	50.13
18285	CG	TYR	D	27	-111.493	-33.013	37.032	1.00	50.17
18286	CD1	TYR	D	27	-112.074	-34.262	37.225	1.00	50.65
18287	CE1	TYR	D	27	-111.338	-35.324	37.711	1.00	50.13
18288	CZ	TYR	D	27	-109.999	-35.147	38.002	1.00	50.51
18289	OH	TYR	D	27	-109.254	-36.199	38.482	1.00	49.41
18290	CE2	TYR	D	27	-109.399	-33.916	37.816	1.00	50.11
18291	CD2	TYR	D	27	-110.146	-32.863	37.328	1.00	50.05
18292	C	TYR	D	27	-113.015	-30.583	34.437	1.00	50.72
18293	O	TYR	D	27	-112.845	-29.491	34.963	1.00	51.02
18294	N	ARG	D	28	-113.770	-30.759	33.363	1.00	51.36
18295	CA	ARG	D	28	-114.399	-29.642	32.675	1.00	51.80
18296	CB	ARG	D	28	-114.632	-29.994	31.207	1.00	52.11
18297	CG	ARG	D	28	-114.695	-28.786	30.286	1.00	54.37
18298	CD	ARG	D	28	-114.251	-29.082	28.857	1.00	58.10
18299	NE	ARG	D	28	-113.024	-29.880	28.828	1.00	60.38

**REPLACEMENT SHEET**  
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**FIGURE 3 MW**

A	B	C	D	E	F	G	H	I	J
18300	CZ	ARG	D	28	-112.573	-30.513	27.749	1.00	62.20
18301	NH1	ARG	D	28	-113.246	-30.433	26.601	1.00	61.96
18302	NH2	ARG	D	28	-111.448	-31.225	27.812	1.00	62.10
18303	C	ARG	D	28	-115.705	-29.216	33.328	1.00	51.52
18304	O	ARG	D	28	-116.432	-30.033	33.891	1.00	51.32
18305	N	LEU	D	29	-115.985	-27.924	33.246	1.00	51.44
18306	CA	LEU	D	29	-117.184	-27.352	33.823	1.00	51.71
18307	CB	LEU	D	29	-116.862	-26.001	34.464	1.00	51.76
18308	CG	LEU	D	29	-117.397	-25.689	35.863	1.00	51.86
18309	CD1	LEU	D	29	-117.174	-24.219	36.199	1.00	52.54
18310	CD2	LEU	D	29	-116.725	-26.560	36.896	1.00	50.90
18311	C	LEU	D	29	-118.175	-27.166	32.695	1.00	51.86
18312	O	LEU	D	29	-117.829	-26.644	31.636	1.00	51.83
18313	N	LYS	D	30	-119.410	-27.601	32.907	1.00	52.21
18314	CA	LYS	D	30	-120.423	-27.456	31.867	1.00	52.67
18315	CB	LYS	D	30	-121.306	-28.710	31.761	1.00	53.06
18316	CG	LYS	D	30	-120.826	-29.719	30.716	1.00	54.05
18317	CD	LYS	D	30	-121.616	-31.021	30.788	1.00	55.73
18318	CE	LYS	D	30	-121.273	-31.910	29.608	1.00	56.45
18319	NZ	LYS	D	30	-121.142	-31.078	28.371	1.00	56.95
18320	C	LYS	D	30	-121.271	-26.206	32.038	1.00	52.47
18321	O	LYS	D	30	-121.777	-25.921	33.119	1.00	52.14
18322	N	LEU	D	31	-121.423	-25.487	30.934	1.00	52.69
18323	CA	LEU	D	31	-122.201	-24.263	30.863	1.00	52.74
18324	CB	LEU	D	31	-121.416	-23.188	30.098	1.00	52.95
18325	CG	LEU	D	31	-120.111	-22.585	30.623	1.00	53.54
18326	CD1	LEU	D	31	-119.004	-23.622	30.673	1.00	53.94
18327	CD2	LEU	D	31	-119.696	-21.403	29.736	1.00	54.17
18328	C	LEU	D	31	-123.465	-24.528	30.069	1.00	52.59
18329	O	LEU	D	31	-123.580	-25.535	29.388	1.00	52.54
18330	N	TYR	D	32	-124.417	-23.613	30.138	1.00	52.53
18331	CA	TYR	D	32	-125.577	-23.720	29.271	1.00	52.53
18332	CB	TYR	D	32	-126.797	-24.261	30.009	1.00	52.27
18333	CG	TYR	D	32	-127.864	-24.763	29.075	1.00	52.18
18334	CD1	TYR	D	32	-128.703	-23.877	28.419	1.00	52.00
18335	CE1	TYR	D	32	-129.685	-24.324	27.558	1.00	52.36
18336	CZ	TYR	D	32	-129.841	-25.676	27.340	1.00	52.56
18337	OH	TYR	D	32	-130.833	-26.103	26.477	1.00	53.81
18338	CE2	TYR	D	32	-129.017	-26.583	27.975	1.00	52.66
18339	CD2	TYR	D	32	-128.029	-26.123	28.839	1.00	52.25
18340	C	TYR	D	32	-125.834	-22.348	28.680	1.00	52.56
18341	O	TYR	D	32	-126.610	-21.563	29.206	1.00	52.46
18342	N	SER	D	33	-125.158	-22.062	27.579	1.00	52.86
18343	CA	SER	D	33	-125.251	-20.755	26.964	1.00	53.35
18344	CB	SER	D	33	-123.942	-20.435	26.249	1.00	53.42
18345	OG	SER	D	33	-123.580	-19.079	26.443	1.00	55.27
18346	C	SER	D	33	-126.415	-20.695	25.986	1.00	53.35
18347	O	SER	D	33	-126.497	-21.499	25.061	1.00	53.27
18348	N	LEU	D	34	-127.318	-19.745	26.191	1.00	53.41
18349	CA	LEU	D	34	-128.459	-19.602	25.299	1.00	53.44
18350	CB	LEU	D	34	-129.746	-20.092	25.968	1.00	53.10

**REPLACEMENT SHEET**  
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**FIGURE 3 MX**

A	B	C	D	E	F	G	H	I	J
18351	CG	LEU	D	34	-130.225	-19.356	27.220	1.00	53.46
18352	CD1	LEU	D	34	-130.978	-18.081	26.859	1.00	52.97
18353	CD2	LEU	D	34	-131.099	-20.262	28.066	1.00	53.49
18354	C	LEU	D	34	-128.632	-18.172	24.835	1.00	53.80
18355	O	LEU	D	34	-128.063	-17.245	25.406	1.00	53.33
18356	N	ARG	D	35	-129.430	-18.008	23.787	1.00	54.56
18357	CA	ARG	D	35	-129.723	-16.701	23.237	1.00	55.37
18358	CB	ARG	D	35	-129.021	-16.528	21.894	1.00	55.72
18359	CG	ARG	D	35	-127.543	-16.885	21.931	1.00	58.21
18360	CD	ARG	D	35	-126.992	-17.461	20.630	1.00	62.08
18361	NE	ARG	D	35	-125.559	-17.203	20.496	1.00	64.78
18362	CZ	ARG	D	35	-125.028	-16.391	19.585	1.00	65.80
18363	NH1	ARG	D	35	-125.808	-15.760	18.711	1.00	65.88
18364	NH2	ARG	D	35	-123.714	-16.211	19.546	1.00	65.79
18365	C	ARG	D	35	-131.221	-16.596	23.050	1.00	55.34
18366	O	ARG	D	35	-131.800	-17.317	22.245	1.00	55.67
18367	N	TRP	D	36	-131.861	-15.716	23.804	1.00	55.45
18368	CA	TRP	D	36	-133.284	-15.519	23.625	1.00	55.58
18369	CB	TRP	D	36	-133.866	-14.634	24.720	1.00	55.11
18370	CG	TRP	D	36	-133.847	-15.281	26.054	1.00	54.04
18371	CD1	TRP	D	36	-133.009	-14.999	27.088	1.00	53.20
18372	NE1	TRP	D	36	-133.290	-15.811	28.158	1.00	52.47
18373	CE2	TRP	D	36	-134.321	-16.646	27.825	1.00	52.20
18374	CD2	TRP	D	36	-134.699	-16.337	26.506	1.00	52.88
18375	CE3	TRP	D	36	-135.748	-17.058	25.926	1.00	52.40
18376	CZ3	TRP	D	36	-136.372	-18.036	26.669	1.00	52.17
18377	CH2	TRP	D	36	-135.974	-18.315	27.982	1.00	51.24
18378	CZ2	TRP	D	36	-134.954	-17.634	28.574	1.00	51.41
18379	C	TRP	D	36	-133.487	-14.890	22.256	1.00	56.26
18380	O	TRP	D	36	-132.865	-13.884	21.915	1.00	55.84
18381	N	ILE	D	37	-134.349	-15.516	21.468	1.00	57.29
18382	CA	ILE	D	37	-134.644	-15.056	20.127	1.00	58.06
18383	CB	ILE	D	37	-134.766	-16.271	19.205	1.00	58.19
18384	CG1	ILE	D	37	-133.814	-16.136	18.020	1.00	58.92
18385	CD1	ILE	D	37	-132.371	-16.010	18.440	1.00	59.40
18386	CG2	ILE	D	37	-136.215	-16.523	18.801	1.00	58.85
18387	C	ILE	D	37	-135.953	-14.300	20.209	1.00	58.33
18388	O	ILE	D	37	-136.236	-13.417	19.400	1.00	58.56
18389	N	SER	D	38	-136.740	-14.647	21.220	1.00	58.68
18390	CA	SER	D	38	-138.021	-14.010	21.463	1.00	59.15
18391	CB	SER	D	38	-139.119	-14.682	20.650	1.00	59.13
18392	OG	SER	D	38	-139.579	-15.848	21.320	1.00	59.77
18393	C	SER	D	38	-138.357	-14.171	22.928	1.00	59.35
18394	O	SER	D	38	-137.491	-14.467	23.745	1.00	59.50
18395	N	ASP	D	39	-139.637	-14.019	23.245	1.00	59.53
18396	CA	ASP	D	39	-140.113	-14.136	24.609	1.00	59.49
18397	CB	ASP	D	39	-141.367	-13.290	24.788	1.00	59.39
18398	CG	ASP	D	39	-141.507	-12.757	26.187	1.00	60.15
18399	OD1	ASP	D	39	-142.625	-12.337	26.550	1.00	61.22
18400	OD2	ASP	D	39	-140.558	-12.714	27.000	1.00	61.27
18401	C	ASP	D	39	-140.410	-15.573	25.009	1.00	59.56

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**FIGURE 3 MY**

A	B	C	D	E	F	G	H	I	J
18402	O	ASP	D	39	-140.781	-15.837	26.145	1.00	59.26
18403	N	HIS	D	40	-140.245	-16.512	24.090	1.00	60.02
18404	CA	HIS	D	40	-140.571	-17.891	24.420	1.00	60.67
18405	CB	HIS	D	40	-141.962	-18.228	23.895	1.00	61.24
18406	CG	HIS	D	40	-142.679	-17.050	23.323	1.00	62.71
18407	ND1	HIS	D	40	-143.549	-16.279	24.064	1.00	64.36
18408	CE1	HIS	D	40	-144.022	-15.304	23.307	1.00	65.09
18409	NE2	HIS	D	40	-143.480	-15.408	22.106	1.00	65.07
18410	CD2	HIS	D	40	-142.634	-16.490	22.091	1.00	64.38
18411	C	HIS	D	40	-139.571	-18.893	23.892	1.00	60.71
18412	O	HIS	D	40	-139.655	-20.077	24.207	1.00	60.52
18413	N	GLU	D	41	-138.621	-18.427	23.091	1.00	61.04
18414	CA	GLU	D	41	-137.649	-19.340	22.507	1.00	61.44
18415	CB	GLU	D	41	-138.019	-19.651	21.055	1.00	61.41
18416	CG	GLU	D	41	-139.515	-19.665	20.776	1.00	62.32
18417	CD	GLU	D	41	-139.826	-19.695	19.291	1.00	63.01
18418	OE1	GLU	D	41	-140.062	-18.609	18.701	1.00	62.19
18419	OE2	GLU	D	41	-139.823	-20.808	18.719	1.00	62.93
18420	C	GLU	D	41	-136.213	-18.831	22.559	1.00	61.54
18421	O	GLU	D	41	-135.950	-17.629	22.439	1.00	61.16
18422	N	TYR	D	42	-135.290	-19.776	22.719	1.00	61.94
18423	CA	TYR	D	42	-133.865	-19.482	22.726	1.00	62.41
18424	CB	TYR	D	42	-133.316	-19.474	24.158	1.00	61.91
18425	CG	TYR	D	42	-133.498	-20.769	24.922	1.00	60.62
18426	CD1	TYR	D	42	-132.702	-21.873	24.658	1.00	58.59
18427	CE1	TYR	D	42	-132.859	-23.046	25.360	1.00	57.20
18428	CZ	TYR	D	42	-133.816	-23.131	26.337	1.00	56.65
18429	OH	TYR	D	42	-133.975	-24.302	27.028	1.00	55.96
18430	CE2	TYR	D	42	-134.616	-22.055	26.627	1.00	57.99
18431	CD2	TYR	D	42	-134.456	-20.879	25.921	1.00	59.62
18432	C	TYR	D	42	-133.114	-20.489	21.855	1.00	63.24
18433	O	TYR	D	42	-133.634	-21.562	21.556	1.00	63.26
18434	N	LEU	D	43	-131.894	-20.142	21.457	1.00	64.36
18435	CA	LEU	D	43	-131.079	-21.021	20.625	1.00	65.66
18436	CB	LEU	D	43	-130.453	-20.244	19.466	1.00	65.62
18437	CG	LEU	D	43	-131.386	-19.504	18.506	1.00	65.31
18438	CD1	LEU	D	43	-130.580	-18.624	17.571	1.00	65.28
18439	CD2	LEU	D	43	-132.247	-20.480	17.719	1.00	65.16
18440	C	LEU	D	43	-129.974	-21.688	21.429	1.00	66.80
18441	O	LEU	D	43	-129.435	-21.098	22.362	1.00	66.97
18442	N	TYR	D	44	-129.633	-22.916	21.049	1.00	68.34
18443	CA	TYR	D	44	-128.584	-23.672	21.722	1.00	69.82
18444	CB	TYR	D	44	-129.186	-24.540	22.828	1.00	69.95
18445	CG	TYR	D	44	-128.161	-25.139	23.767	1.00	70.66
18446	CD1	TYR	D	44	-127.468	-24.340	24.665	1.00	71.01
18447	CE1	TYR	D	44	-126.533	-24.873	25.525	1.00	71.12
18448	CZ	TYR	D	44	-126.275	-26.226	25.500	1.00	71.46
18449	OH	TYR	D	44	-125.335	-26.752	26.360	1.00	71.77
18450	CE2	TYR	D	44	-126.949	-27.049	24.619	1.00	71.57
18451	CD2	TYR	D	44	-127.888	-26.503	23.758	1.00	71.27
18452	C	TYR	D	44	-127.848	-24.549	20.717	1.00	70.76

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**FIGURE 3 MZ**

A	B	C	D	E	F	G	H	I	J
18453	O	TYR	D	44	-128.317	-24.735	19.597	1.00	70.90
18454	N	LYS	D	45	-126.699	-25.088	21.114	1.00	72.12
18455	CA	LYS	D	45	-125.926	-25.955	20.228	1.00	73.44
18456	CB	LYS	D	45	-124.755	-25.192	19.599	1.00	73.38
18457	CG	LYS	D	45	-123.953	-24.337	20.555	1.00	73.74
18458	CD	LYS	D	45	-122.947	-23.474	19.795	1.00	74.29
18459	CE	LYS	D	45	-121.734	-24.277	19.331	1.00	74.20
18460	NZ	LYS	D	45	-120.701	-23.434	18.637	1.00	73.99
18461	C	LYS	D	45	-125.431	-27.230	20.912	1.00	74.32
18462	O	LYS	D	45	-125.079	-27.211	22.090	1.00	74.42
18463	N	GLN	D	46	-125.406	-28.331	20.159	1.00	75.53
18464	CA	GLN	D	46	-124.943	-29.626	20.670	1.00	76.63
18465	CB	GLN	D	46	-126.032	-30.688	20.521	1.00	76.65
18466	CG	GLN	D	46	-126.706	-31.000	21.844	1.00	77.46
18467	CD	GLN	D	46	-128.140	-31.440	21.695	1.00	77.98
18468	OE1	GLN	D	46	-128.996	-31.048	22.492	1.00	78.63
18469	NE2	GLN	D	46	-128.413	-32.259	20.685	1.00	78.04
18470	C	GLN	D	46	-123.618	-30.101	20.060	1.00	77.22
18471	O	GLN	D	46	-122.543	-29.752	20.564	1.00	77.30
18472	N	GLU	D	47	-123.698	-30.922	19.012	1.00	77.93
18473	CA	GLU	D	47	-122.513	-31.367	18.277	1.00	78.65
18474	CB	GLU	D	47	-122.956	-32.049	16.974	1.00	78.73
18475	CG	GLU	D	47	-121.979	-33.038	16.340	1.00	79.60
18476	CD	GLU	D	47	-122.658	-33.943	15.310	1.00	80.37
18477	OE1	GLU	D	47	-122.905	-35.134	15.618	1.00	80.34
18478	OE2	GLU	D	47	-122.958	-33.464	14.193	1.00	79.84
18479	C	GLU	D	47	-121.810	-30.060	17.963	1.00	78.87
18480	O	GLU	D	47	-120.766	-29.714	18.522	1.00	78.95
18481	N	ASN	D	48	-122.439	-29.340	17.051	1.00	79.03
18482	CA	ASN	D	48	-122.106	-27.980	16.693	1.00	79.17
18483	CB	ASN	D	48	-120.796	-27.853	15.913	1.00	79.39
18484	CG	ASN	D	48	-120.312	-26.396	15.808	1.00	79.85
18485	OD1	ASN	D	48	-120.890	-25.488	16.415	1.00	79.96
18486	ND2	ASN	D	48	-119.253	-26.176	15.032	1.00	79.80
18487	C	ASN	D	48	-123.322	-27.634	15.864	1.00	79.05
18488	O	ASN	D	48	-123.317	-26.721	15.043	1.00	79.01
18489	N	ASN	D	49	-124.364	-28.437	16.078	1.00	78.88
18490	CA	ASN	D	49	-125.670	-28.187	15.507	1.00	78.77
18491	CB	ASN	D	49	-126.641	-29.306	15.883	1.00	79.00
18492	CG	ASN	D	49	-126.655	-30.451	14.886	1.00	79.55
18493	OD1	ASN	D	49	-126.781	-31.610	15.275	1.00	80.11
18494	ND2	ASN	D	49	-126.556	-30.133	13.599	1.00	80.29
18495	C	ASN	D	49	-126.137	-26.947	16.219	1.00	78.53
18496	O	ASN	D	49	-125.639	-26.640	17.299	1.00	78.67
18497	N	ILE	D	50	-127.087	-26.227	15.644	1.00	78.07
18498	CA	ILE	D	50	-127.646	-25.083	16.352	1.00	77.53
18499	CB	ILE	D	50	-127.129	-23.744	15.787	1.00	77.63
18500	CG1	ILE	D	50	-125.938	-23.273	16.632	1.00	77.74
18501	CD1	ILE	D	50	-124.959	-22.387	15.900	1.00	78.44
18502	CG2	ILE	D	50	-128.215	-22.684	15.817	1.00	77.47
18503	C	ILE	D	50	-129.164	-25.189	16.423	1.00	77.15



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FIGURE 3 NA

A	B	C	D	E	F	G	H	I	J
18504	O	ILE	D	50	-129.877	-24.945	15.449	1.00	77.13
18505	N	LEU	D	51	-129.637	-25.585	17.600	1.00	76.58
18506	CA	LEU	D	51	-131.051	-25.847	17.832	1.00	76.10
18507	CB	LEU	D	51	-131.215	-26.917	18.917	1.00	75.99
18508	CG	LEU	D	51	-130.782	-28.350	18.608	1.00	75.89
18509	CD1	LEU	D	51	-129.381	-28.391	18.026	1.00	75.81
18510	CD2	LEU	D	51	-130.866	-29.205	19.865	1.00	75.82
18511	C	LEU	D	51	-131.871	-24.626	18.228	1.00	75.75
18512	O	LEU	D	51	-131.384	-23.499	18.258	1.00	75.75
18513	N	VAL	D	52	-133.137	-24.888	18.523	1.00	75.24
18514	CA	VAL	D	52	-134.077	-23.883	18.982	1.00	74.85
18515	CB	VAL	D	52	-134.992	-23.372	17.851	1.00	74.86
18516	CG1	VAL	D	52	-135.927	-22.293	18.365	1.00	74.39
18517	CG2	VAL	D	52	-135.792	-24.519	17.250	1.00	75.16
18518	C	VAL	D	52	-134.926	-24.584	20.021	1.00	74.56
18519	O	VAL	D	52	-135.341	-25.730	19.825	1.00	74.55
18520	N	PHE	D	53	-135.172	-23.908	21.135	1.00	74.03
18521	CA	PHE	D	53	-135.937	-24.512	22.206	1.00	73.50
18522	CB	PHE	D	53	-135.085	-24.629	23.467	1.00	73.31
18523	CG	PHE	D	53	-134.127	-25.783	23.454	1.00	72.34
18524	CD1	PHE	D	53	-132.980	-25.745	22.677	1.00	71.52
18525	CE1	PHE	D	53	-132.094	-26.806	22.673	1.00	71.38
18526	CZ	PHE	D	53	-132.349	-27.920	23.454	1.00	71.45
18527	CE2	PHE	D	53	-133.490	-27.965	24.237	1.00	71.06
18528	CD2	PHE	D	53	-134.367	-26.901	24.237	1.00	71.23
18529	C	PHE	D	53	-137.189	-23.727	22.533	1.00	73.55
18530	O	PHE	D	53	-137.224	-22.503	22.436	1.00	73.37
18531	N	ASN	D	54	-138.229	-24.452	22.911	1.00	73.74
18532	CA	ASN	D	54	-139.442	-23.828	23.393	1.00	74.00
18533	CB	ASN	D	54	-140.656	-24.691	23.059	1.00	73.94
18534	CG	ASN	D	54	-141.966	-23.973	23.303	1.00	73.93
18535	OD1	ASN	D	54	-142.492	-23.295	22.414	1.00	74.01
18536	ND2	ASN	D	54	-142.503	-24.115	24.511	1.00	73.20
18537	C	ASN	D	54	-139.237	-23.743	24.896	1.00	74.19
18538	O	ASN	D	54	-138.985	-24.757	25.543	1.00	74.23
18539	N	ALA	D	55	-139.306	-22.543	25.454	1.00	74.39
18540	CA	ALA	D	55	-139.037	-22.393	26.876	1.00	74.79
18541	CB	ALA	D	55	-138.990	-20.924	27.270	1.00	74.66
18542	C	ALA	D	55	-140.082	-23.128	27.687	1.00	75.07
18543	O	ALA	D	55	-139.766	-23.828	28.650	1.00	74.91
18544	N	GLU	D	56	-141.330	-22.981	27.271	1.00	75.59
18545	CA	GLU	D	56	-142.441	-23.583	27.981	1.00	76.20
18546	CB	GLU	D	56	-143.759	-23.051	27.421	1.00	76.39
18547	CG	GLU	D	56	-144.987	-23.506	28.187	1.00	77.36
18548	CD	GLU	D	56	-145.964	-22.373	28.429	1.00	78.96
18549	OE1	GLU	D	56	-146.895	-22.191	27.608	1.00	78.93
18550	OE2	GLU	D	56	-145.789	-21.659	29.445	1.00	79.50
18551	C	GLU	D	56	-142.420	-25.105	27.940	1.00	76.45
18552	O	GLU	D	56	-142.755	-25.758	28.929	1.00	76.46
18553	N	TYR	D	57	-142.010	-25.672	26.808	1.00	76.74
18554	CA	TYR	D	57	-142.025	-27.128	26.646	1.00	77.16

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**FIGURE 3 NB**

A	B	C	D	E	F	G	H	I	J
18555	CB	TYR	D	57	-142.721	-27.512	25.338	1.00	77.31
18556	CG	TYR	D	57	-144.107	-26.930	25.186	1.00	77.56
18557	CD1	TYR	D	57	-144.962	-26.823	26.276	1.00	78.01
18558	CE1	TYR	D	57	-146.233	-26.290	26.140	1.00	78.45
18559	CZ	TYR	D	57	-146.661	-25.857	24.899	1.00	78.96
18560	OH	TYR	D	57	-147.924	-25.329	24.753	1.00	79.47
18561	CE2	TYR	D	57	-145.827	-25.952	23.803	1.00	78.89
18562	CD2	TYR	D	57	-144.560	-26.488	23.951	1.00	78.24
18563	C	TYR	D	57	-140.649	-27.788	26.704	1.00	77.30
18564	O	TYR	D	57	-140.448	-28.750	27.451	1.00	77.24
18565	N	GLY	D	58	-139.713	-27.286	25.902	1.00	77.50
18566	CA	GLY	D	58	-138.367	-27.836	25.867	1.00	77.58
18567	C	GLY	D	58	-137.942	-28.299	24.486	1.00	77.47
18568	O	GLY	D	58	-137.676	-29.481	24.271	1.00	77.49
18569	N	VAL	D	62	-133.961	-29.159	15.079	1.00	83.22
18570	CA	VAL	D	62	-132.871	-28.300	14.537	1.00	83.38
18571	CB	VAL	D	62	-132.081	-29.032	13.430	1.00	83.34
18572	CG1	VAL	D	62	-130.908	-28.195	12.960	1.00	83.33
18573	CG2	VAL	D	62	-131.602	-30.384	13.928	1.00	83.42
18574	C	VAL	D	62	-133.424	-26.981	13.990	1.00	83.44
18575	O	VAL	D	62	-134.581	-26.903	13.581	1.00	83.40
18576	N	PHE	D	63	-132.591	-25.947	14.008	1.00	83.48
18577	CA	PHE	D	63	-132.954	-24.638	13.484	1.00	83.59
18578	CB	PHE	D	63	-132.846	-23.575	14.581	1.00	83.53
18579	CG	PHE	D	63	-132.810	-22.160	14.063	1.00	83.01
18580	CD1	PHE	D	63	-131.605	-21.553	13.744	1.00	82.34
18581	CE1	PHE	D	63	-131.571	-20.258	13.270	1.00	82.12
18582	CZ	PHE	D	63	-132.746	-19.549	13.116	1.00	82.46
18583	CE2	PHE	D	63	-133.952	-20.137	13.434	1.00	82.52
18584	CD2	PHE	D	63	-133.980	-21.436	13.904	1.00	82.81
18585	C	PHE	D	63	-131.984	-24.325	12.360	1.00	83.79
18586	O	PHE	D	63	-132.303	-23.604	11.413	1.00	83.64
18587	N	LEU	D	64	-130.791	-24.892	12.487	1.00	84.09
18588	CA	LEU	D	64	-129.728	-24.728	11.513	1.00	84.53
18589	CB	LEU	D	64	-129.156	-23.315	11.593	1.00	84.49
18590	CG	LEU	D	64	-128.367	-22.810	10.387	1.00	84.86
18591	CD1	LEU	D	64	-126.883	-23.100	10.544	1.00	85.36
18592	CD2	LEU	D	64	-128.912	-23.405	9.098	1.00	85.27
18593	C	LEU	D	64	-128.676	-25.771	11.857	1.00	84.75
18594	O	LEU	D	64	-128.028	-25.688	12.897	1.00	84.83
18595	N	GLU	D	65	-128.530	-26.773	10.999	1.00	85.08
18596	CA	GLU	D	65	-127.599	-27.863	11.270	1.00	85.31
18597	CB	GLU	D	65	-128.250	-29.215	10.961	1.00	85.43
18598	CG	GLU	D	65	-128.834	-29.335	9.559	1.00	85.81
18599	CD	GLU	D	65	-128.974	-30.781	9.108	1.00	86.74
18600	OE1	GLU	D	65	-129.157	-31.019	7.890	1.00	86.19
18601	OE2	GLU	D	65	-128.892	-31.682	9.973	1.00	87.10
18602	C	GLU	D	65	-126.310	-27.720	10.482	1.00	85.36
18603	O	GLU	D	65	-126.332	-27.649	9.255	1.00	85.27
18604	N	ASN	D	66	-125.177	-27.682	11.172	1.00	85.66
18605	CA	ASN	D	66	-123.935	-27.549	10.429	1.00	85.86

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**FIGURE 3 NC**

A	B	C	D	E	F	G	H	I	J
18606	CB	ASN	D	66	-122.739	-27.089	11.261	1.00	85.95
18607	CG	ASN	D	66	-121.740	-26.298	10.423	1.00	86.51
18608	OD1	ASN	D	66	-121.971	-26.056	9.231	1.00	86.46
18609	ND2	ASN	D	66	-120.634	-25.886	11.038	1.00	86.95
18610	C	ASN	D	66	-123.632	-28.797	9.625	1.00	85.77
18611	O	ASN	D	66	-123.426	-29.897	10.150	1.00	85.83
18612	N	SER	D	67	-123.642	-28.560	8.325	1.00	85.60
18613	CA	SER	D	67	-123.456	-29.518	7.266	1.00	85.38
18614	CB	SER	D	67	-124.434	-30.681	7.392	1.00	85.46
18615	OG	SER	D	67	-125.754	-30.273	7.079	1.00	85.72
18616	C	SER	D	67	-123.911	-28.552	6.207	1.00	85.18
18617	O	SER	D	67	-123.708	-28.739	5.006	1.00	85.31
18618	N	THR	D	68	-124.525	-27.487	6.721	1.00	84.81
18619	CA	THR	D	68	-125.035	-26.374	5.946	1.00	84.50
18620	CB	THR	D	68	-125.882	-25.472	6.856	1.00	84.49
18621	OG1	THR	D	68	-126.882	-26.254	7.520	1.00	84.48
18622	CG2	THR	D	68	-126.690	-24.480	6.034	1.00	84.49
18623	C	THR	D	68	-123.864	-25.567	5.426	1.00	84.31
18624	O	THR	D	68	-123.836	-25.145	4.271	1.00	84.14
18625	N	PHE	D	69	-122.893	-25.352	6.301	1.00	84.23
18626	CA	PHE	D	69	-121.712	-24.591	5.944	1.00	84.08
18627	CB	PHE	D	69	-121.579	-23.375	6.855	1.00	83.82
18628	CG	PHE	D	69	-122.827	-22.544	6.934	1.00	82.91
18629	CD1	PHE	D	69	-123.228	-21.771	5.856	1.00	82.28
18630	CE1	PHE	D	69	-124.377	-21.001	5.923	1.00	81.61
18631	CZ	PHE	D	69	-125.137	-21.000	7.070	1.00	81.37
18632	CE2	PHE	D	69	-124.748	-21.769	8.152	1.00	81.68
18633	CD2	PHE	D	69	-123.600	-22.535	8.081	1.00	81.88
18634	C	PHE	D	69	-120.481	-25.474	6.026	1.00	84.24
18635	O	PHE	D	69	-119.565	-25.219	6.806	1.00	84.37
18636	N	ASP	D	70	-120.470	-26.525	5.216	1.00	84.43
18637	CA	ASP	D	70	-119.340	-27.443	5.202	1.00	84.64
18638	CB	ASP	D	70	-119.796	-28.881	5.472	1.00	84.75
18639	CG	ASP	D	70	-120.033	-29.147	6.958	1.00	85.27
18640	OD1	ASP	D	70	-119.480	-28.400	7.797	1.00	85.62
18641	OD2	ASP	D	70	-120.749	-30.077	7.387	1.00	85.61
18642	C	ASP	D	70	-118.503	-27.333	3.927	1.00	84.52
18643	O	ASP	D	70	-117.520	-28.050	3.763	1.00	84.45
18644	N	GLU	D	71	-118.898	-26.430	3.032	1.00	84.45
18645	CA	GLU	D	71	-118.112	-26.151	1.830	1.00	84.41
18646	CB	GLU	D	71	-118.313	-27.217	0.733	1.00	84.55
18647	CG	GLU	D	71	-119.445	-26.955	-0.245	1.00	85.22
18648	CD	GLU	D	71	-119.026	-27.195	-1.687	1.00	86.06
18649	OE1	GLU	D	71	-119.589	-26.533	-2.591	1.00	86.19
18650	OE2	GLU	D	71	-118.128	-28.037	-1.917	1.00	86.29
18651	C	GLU	D	71	-118.344	-24.713	1.336	1.00	84.10
18652	O	GLU	D	71	-118.526	-24.449	0.145	1.00	84.10
18653	N	PHE	D	72	-118.336	-23.782	2.282	1.00	83.66
18654	CA	PHE	D	72	-118.477	-22.371	1.949	1.00	83.21
18655	CB	PHE	D	72	-119.472	-21.669	2.881	1.00	83.47
18656	CG	PHE	D	72	-118.846	-21.054	4.094	1.00	83.83

**REPLACEMENT SHEET**  
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**FIGURE 3 ND**

A	B	C	D	E	F	G	H	I	J
18657	CD1	PHE	D	72	-118.310	-21.847	5.093	1.00	84.40
18658	CE1	PHE	D	72	-117.737	-21.277	6.210	1.00	84.80
18659	CZ	PHE	D	72	-117.695	-19.901	6.341	1.00	84.99
18660	CE2	PHE	D	72	-118.229	-19.100	5.352	1.00	84.60
18661	CD2	PHE	D	72	-118.803	-19.677	4.239	1.00	84.27
18662	C	PHE	D	72	-117.093	-21.715	1.967	1.00	82.57
18663	O	PHE	D	72	-116.947	-20.506	1.754	1.00	82.33
18664	N	GLY	D	73	-116.085	-22.544	2.238	1.00	81.88
18665	CA	GLY	D	73	-114.693	-22.138	2.155	1.00	80.90
18666	C	GLY	D	73	-113.908	-21.819	3.414	1.00	80.12
18667	O	GLY	D	73	-112.691	-22.018	3.447	1.00	80.16
18668	N	HIS	D	74	-114.571	-21.317	4.448	1.00	79.14
18669	CA	HIS	D	74	-113.844	-20.912	5.644	1.00	78.20
18670	CB	HIS	D	74	-113.872	-19.391	5.784	1.00	78.23
18671	CG	HIS	D	74	-113.674	-18.651	4.494	1.00	78.28
18672	ND1	HIS	D	74	-112.450	-18.146	4.105	1.00	78.33
18673	CE1	HIS	D	74	-112.579	-17.529	2.944	1.00	78.17
18674	NE2	HIS	D	74	-113.843	-17.608	2.568	1.00	77.82
18675	CD2	HIS	D	74	-114.549	-18.304	3.519	1.00	78.10
18676	C	HIS	D	74	-114.389	-21.552	6.910	1.00	77.45
18677	O	HIS	D	74	-115.388	-22.264	6.872	1.00	77.60
18678	N	SER	D	75	-113.716	-21.316	8.031	1.00	76.48
18679	CA	SER	D	75	-114.196	-21.825	9.312	1.00	75.42
18680	CB	SER	D	75	-113.045	-22.173	10.250	1.00	75.46
18681	OG	SER	D	75	-113.531	-22.861	11.388	1.00	74.94
18682	C	SER	D	75	-115.089	-20.760	9.931	1.00	74.71
18683	O	SER	D	75	-114.994	-19.584	9.575	1.00	74.71
18684	N	ILE	D	76	-115.956	-21.163	10.853	1.00	73.61
18685	CA	ILE	D	76	-116.908	-20.220	11.426	1.00	72.53
18686	CB	ILE	D	76	-118.347	-20.638	11.075	1.00	72.60
18687	CG1	ILE	D	76	-118.484	-20.801	9.561	1.00	72.56
18688	CD1	ILE	D	76	-119.863	-21.200	9.099	1.00	71.45
18689	CG2	ILE	D	76	-119.346	-19.612	11.601	1.00	72.53
18690	C	ILE	D	76	-116.747	-20.017	12.931	1.00	71.73
18691	O	ILE	D	76	-117.134	-20.869	13.741	1.00	71.52
18692	N	ASN	D	77	-116.181	-18.871	13.292	1.00	70.56
18693	CA	ASN	D	77	-115.957	-18.530	14.689	1.00	69.44
18694	CB	ASN	D	77	-114.990	-17.352	14.805	1.00	69.52
18695	CG	ASN	D	77	-114.734	-16.953	16.241	1.00	69.69
18696	OD1	ASN	D	77	-114.420	-17.798	17.078	1.00	70.75
18697	ND2	ASN	D	77	-114.881	-15.666	16.541	1.00	69.22
18698	C	ASN	D	77	-117.255	-18.202	15.407	1.00	68.57
18699	O	ASN	D	77	-117.593	-18.819	16.414	1.00	68.24
18700	N	ASP	D	78	-117.986	-17.226	14.881	1.00	67.69
18701	CA	ASP	D	78	-119.234	-16.817	15.507	1.00	66.94
18702	CB	ASP	D	78	-119.013	-15.598	16.398	1.00	66.72
18703	CG	ASP	D	78	-119.851	-15.638	17.657	1.00	66.78
18704	OD1	ASP	D	78	-120.937	-16.258	17.648	1.00	65.33
18705	OD2	ASP	D	78	-119.495	-15.079	18.717	1.00	68.20
18706	C	ASP	D	78	-120.286	-16.494	14.469	1.00	66.38
18707	O	ASP	D	78	-119.969	-16.197	13.318	1.00	66.58

**REPLACEMENT SHEET**  
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**FIGURE 3 NE**

A	B	C	D	E	F	G	H	I	J
18708	N	TYR	D	79	-121.542	-16.537	14.890	1.00	65.60
18709	CA	TYR	D	79	-122.648	-16.235	14.007	1.00	65.15
18710	CB	TYR	D	79	-123.374	-17.520	13.612	1.00	65.19
18711	CG	TYR	D	79	-124.214	-18.068	14.734	1.00	65.06
18712	CD1	TYR	D	79	-123.661	-18.893	15.705	1.00	64.87
18713	CE1	TYR	D	79	-124.429	-19.383	16.740	1.00	64.97
18714	CZ	TYR	D	79	-125.765	-19.041	16.816	1.00	65.33
18715	OH	TYR	D	79	-126.555	-19.514	17.842	1.00	65.81
18716	CE2	TYR	D	79	-126.326	-18.218	15.868	1.00	65.17
18717	CD2	TYR	D	79	-125.553	-17.735	14.841	1.00	64.78
18718	C	TYR	D	79	-123.620	-15.327	14.729	1.00	64.70
18719	O	TYR	D	79	-123.613	-15.245	15.948	1.00	64.70
18720	N	SER	D	80	-124.461	-14.647	13.966	1.00	64.24
18721	CA	SER	D	80	-125.489	-13.801	14.539	1.00	63.93
18722	CB	SER	D	80	-125.011	-12.353	14.643	1.00	64.13
18723	OG	SER	D	80	-126.094	-11.481	14.935	1.00	64.06
18724	C	SER	D	80	-126.739	-13.888	13.674	1.00	63.70
18725	O	SER	D	80	-126.727	-13.531	12.498	1.00	63.51
18726	N	ILE	D	81	-127.818	-14.381	14.259	1.00	63.43
18727	CA	ILE	D	81	-129.068	-14.490	13.536	1.00	63.30
18728	CB	ILE	D	81	-129.919	-15.648	14.109	1.00	63.41
18729	CG1	ILE	D	81	-131.067	-15.998	13.172	1.00	63.41
18730	CD1	ILE	D	81	-132.395	-15.522	13.681	1.00	64.28
18731	CG2	ILE	D	81	-130.482	-15.281	15.471	1.00	63.53
18732	C	ILE	D	81	-129.814	-13.164	13.608	1.00	63.27
18733	O	ILE	D	81	-129.892	-12.537	14.670	1.00	63.14
18734	N	SER	D	82	-130.330	-12.723	12.466	1.00	63.18
18735	CA	SER	D	82	-131.118	-11.502	12.402	1.00	63.33
18736	CB	SER	D	82	-131.666	-11.315	10.985	1.00	63.49
18737	OG	SER	D	82	-133.021	-10.893	11.001	1.00	64.27
18738	C	SER	D	82	-132.255	-11.598	13.418	1.00	63.16
18739	O	SER	D	82	-132.758	-12.683	13.683	1.00	63.06
18740	N	PRO	D	83	-132.644	-10.472	14.002	1.00	63.18
18741	CA	PRO	D	83	-133.703	-10.453	15.018	1.00	63.33
18742	CB	PRO	D	83	-133.758	-8.980	15.438	1.00	63.18
18743	CG	PRO	D	83	-132.471	-8.414	15.001	1.00	63.17
18744	CD	PRO	D	83	-132.095	-9.132	13.747	1.00	63.09
18745	C	PRO	D	83	-135.070	-10.882	14.481	1.00	63.62
18746	O	PRO	D	83	-135.923	-11.318	15.263	1.00	63.80
18747	N	ASP	D	84	-135.284	-10.754	13.173	1.00	63.53
18748	CA	ASP	D	84	-136.564	-11.137	12.586	1.00	63.36
18749	CB	ASP	D	84	-136.971	-10.178	11.466	1.00	63.39
18750	CG	ASP	D	84	-136.091	-10.295	10.248	1.00	63.23
18751	OD1	ASP	D	84	-135.357	-11.301	10.130	1.00	62.23
18752	OD2	ASP	D	84	-136.072	-9.421	9.356	1.00	63.40
18753	C	ASP	D	84	-136.539	-12.569	12.083	1.00	63.32
18754	O	ASP	D	84	-137.450	-13.010	11.392	1.00	63.35
18755	N	GLY	D	85	-135.474	-13.284	12.424	1.00	63.38
18756	CA	GLY	D	85	-135.340	-14.685	12.077	1.00	63.24
18757	C	GLY	D	85	-135.015	-14.989	10.630	1.00	63.26
18758	O	GLY	D	85	-134.825	-16.151	10.277	1.00	63.30

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**FIGURE 3 NF**

A	B	C	D	E	F	G	H	I	J
18759	N	GLN	D	86	-134.934	-13.961	9.792	1.00	63.30
18760	CA	GLN	D	86	-134.673	-14.169	8.368	1.00	63.43
18761	CB	GLN	D	86	-135.209	-12.998	7.541	1.00	63.52
18762	CG	GLN	D	86	-136.733	-12.951	7.521	1.00	64.35
18763	CD	GLN	D	86	-137.282	-11.754	6.778	1.00	65.38
18764	OE1	GLN	D	86	-137.961	-10.912	7.372	1.00	65.62
18765	NE2	GLN	D	86	-137.002	-11.675	5.476	1.00	65.65
18766	C	GLN	D	86	-133.218	-14.475	8.008	1.00	63.32
18767	O	GLN	D	86	-132.924	-15.501	7.397	1.00	63.52
18768	N	PHE	D	87	-132.304	-13.593	8.392	1.00	63.19
18769	CA	PHE	D	87	-130.907	-13.772	8.021	1.00	62.76
18770	CB	PHE	D	87	-130.344	-12.466	7.482	1.00	62.99
18771	CG	PHE	D	87	-131.043	-11.970	6.262	1.00	63.91
18772	CD1	PHE	D	87	-130.733	-12.487	5.014	1.00	64.41
18773	CE1	PHE	D	87	-131.373	-12.027	3.877	1.00	64.88
18774	CZ	PHE	D	87	-132.336	-11.043	3.981	1.00	65.49
18775	CE2	PHE	D	87	-132.657	-10.518	5.228	1.00	65.49
18776	CD2	PHE	D	87	-132.011	-10.984	6.358	1.00	64.68
18777	C	PHE	D	87	-129.996	-14.282	9.132	1.00	62.35
18778	O	PHE	D	87	-130.378	-14.352	10.300	1.00	62.63
18779	N	ILE	D	88	-128.786	-14.656	8.736	1.00	61.42
18780	CA	ILE	D	88	-127.760	-15.054	9.673	1.00	60.54
18781	CB	ILE	D	88	-127.588	-16.577	9.741	1.00	60.82
18782	CG1	ILE	D	88	-126.251	-16.918	10.413	1.00	60.96
18783	CD1	ILE	D	88	-126.024	-18.405	10.653	1.00	62.14
18784	CG2	ILE	D	88	-127.633	-17.170	8.368	1.00	60.40
18785	C	ILE	D	88	-126.462	-14.419	9.241	1.00	59.79
18786	O	ILE	D	88	-126.043	-14.541	8.087	1.00	59.64
18787	N	LEU	D	89	-125.842	-13.711	10.175	1.00	58.71
18788	CA	LEU	D	89	-124.556	-13.117	9.923	1.00	57.45
18789	CB	LEU	D	89	-124.316	-11.987	10.909	1.00	57.41
18790	CG	LEU	D	89	-123.070	-11.161	10.622	1.00	57.49
18791	CD1	LEU	D	89	-122.988	-10.017	11.608	1.00	57.05
18792	CD2	LEU	D	89	-123.098	-10.650	9.191	1.00	56.64
18793	C	LEU	D	89	-123.532	-14.215	10.128	1.00	56.69
18794	O	LEU	D	89	-123.682	-15.044	11.029	1.00	56.50
18795	N	LEU	D	90	-122.513	-14.254	9.277	1.00	55.64
18796	CA	LEU	D	90	-121.441	-15.228	9.447	1.00	54.69
18797	CB	LEU	D	90	-121.392	-16.246	8.306	1.00	54.88
18798	CG	LEU	D	90	-122.565	-17.225	8.179	1.00	55.57
18799	CD1	LEU	D	90	-122.482	-18.002	6.863	1.00	55.72
18800	CD2	LEU	D	90	-122.642	-18.193	9.369	1.00	56.14
18801	C	LEU	D	90	-120.106	-14.514	9.612	1.00	53.74
18802	O	LEU	D	90	-119.693	-13.708	8.777	1.00	53.63
18803	N	GLU	D	91	-119.452	-14.821	10.720	1.00	52.71
18804	CA	GLU	D	91	-118.185	-14.228	11.089	1.00	51.54
18805	CB	GLU	D	91	-118.241	-13.849	12.569	1.00	51.93
18806	CG	GLU	D	91	-117.111	-12.974	13.083	1.00	52.01
18807	CD	GLU	D	91	-117.414	-12.450	14.471	1.00	52.71
18808	OE1	GLU	D	91	-117.001	-13.103	15.455	1.00	53.26
18809	OE2	GLU	D	91	-118.089	-11.402	14.574	1.00	52.28

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FIGURE 3 NG

A	B	C	D	E	F	G	H	I	J
18810	C	GLU	D	91	-117.083	-15.244	10.879	1.00	50.56
18811	O	GLU	D	91	-117.157	-16.374	11.378	1.00	50.30
18812	N	TYR	D	92	-116.055	-14.837	10.149	1.00	49.43
18813	CA	TYR	D	92	-114.918	-15.707	9.899	1.00	48.37
18814	CB	TYR	D	92	-115.196	-16.650	8.724	1.00	48.77
18815	CG	TYR	D	92	-115.437	-15.951	7.407	1.00	47.98
18816	CD1	TYR	D	92	-116.603	-15.238	7.186	1.00	48.58
18817	CE1	TYR	D	92	-116.833	-14.598	5.977	1.00	50.05
18818	CZ	TYR	D	92	-115.884	-14.676	4.976	1.00	49.53
18819	OH	TYR	D	92	-116.112	-14.035	3.780	1.00	50.03
18820	CE2	TYR	D	92	-114.713	-15.384	5.180	1.00	48.92
18821	CD2	TYR	D	92	-114.500	-16.016	6.386	1.00	47.76
18822	C	TYR	D	92	-113.695	-14.847	9.642	1.00	47.68
18823	O	TYR	D	92	-113.818	-13.648	9.395	1.00	47.18
18824	N	ASN	D	93	-112.521	-15.463	9.692	1.00	47.05
18825	CA	ASN	D	93	-111.272	-14.721	9.583	1.00	47.12
18826	CB	ASN	D	93	-111.129	-14.065	8.215	1.00	47.56
18827	CG	ASN	D	93	-110.728	-15.063	7.146	1.00	49.03
18828	OD1	ASN	D	93	-110.356	-16.200	7.458	1.00	50.33
18829	ND2	ASN	D	93	-110.797	-14.648	5.883	1.00	48.85
18830	C	ASN	D	93	-111.119	-13.720	10.737	1.00	46.43
18831	O	ASN	D	93	-110.718	-12.555	10.561	1.00	45.96
18832	N	TYR	D	94	-111.456	-14.214	11.920	1.00	45.67
18833	CA	TYR	D	94	-111.351	-13.459	13.165	1.00	45.50
18834	CB	TYR	D	94	-111.980	-14.277	14.298	1.00	45.58
18835	CG	TYR	D	94	-111.609	-13.851	15.704	1.00	46.25
18836	CD1	TYR	D	94	-112.362	-12.902	16.388	1.00	45.76
18837	CE1	TYR	D	94	-112.043	-12.534	17.679	1.00	45.45
18838	CZ	TYR	D	94	-110.962	-13.119	18.305	1.00	46.65
18839	OH	TYR	D	94	-110.629	-12.765	19.597	1.00	45.85
18840	CE2	TYR	D	94	-110.210	-14.076	17.649	1.00	46.49
18841	CD2	TYR	D	94	-110.535	-14.435	16.364	1.00	46.48
18842	C	TYR	D	94	-109.911	-13.129	13.546	1.00	44.63
18843	O	TYR	D	94	-109.115	-14.026	13.806	1.00	44.39
18844	N	VAL	D	95	-109.573	-11.846	13.554	1.00	43.64
18845	CA	VAL	D	95	-108.281	-11.437	14.087	1.00	43.01
18846	CB	VAL	D	95	-107.334	-10.815	13.034	1.00	43.31
18847	CG1	VAL	D	95	-106.030	-10.381	13.700	1.00	42.61
18848	CG2	VAL	D	95	-107.039	-11.808	11.898	1.00	42.96
18849	C	VAL	D	95	-108.511	-10.473	15.250	1.00	42.24
18850	O	VAL	D	95	-108.874	-9.311	15.059	1.00	42.07
18851	N	LYS	D	96	-108.299	-10.986	16.458	1.00	41.35
18852	CA	LYS	D	96	-108.477	-10.235	17.696	1.00	39.85
18853	CB	LYS	D	96	-108.243	-11.162	18.886	1.00	40.10
18854	CG	LYS	D	96	-108.004	-10.449	20.204	1.00	40.77
18855	CD	LYS	D	96	-107.842	-11.437	21.357	1.00	41.13
18856	CE	LYS	D	96	-107.905	-10.718	22.701	1.00	41.42
18857	NZ	LYS	D	96	-106.968	-9.565	22.765	1.00	40.32
18858	C	LYS	D	96	-107.534	-9.051	17.817	1.00	38.99
18859	O	LYS	D	96	-106.360	-9.162	17.482	1.00	38.20
18860	N	GLN	D	97	-108.062	-7.921	18.294	1.00	37.80

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**FIGURE 3 NH**

A	B	C	D	E	F	G	H	I	J
18861	CA	GLN	D	97	-107.241	-6.753	18.574	1.00	36.98
18862	CB	GLN	D	97	-107.837	-5.459	18.007	1.00	37.03
18863	CG	GLN	D	97	-106.787	-4.329	17.891	1.00	39.86
18864	CD	GLN	D	97	-107.361	-2.993	17.384	1.00	43.93
18865	OE1	GLN	D	97	-106.611	-2.128	16.904	1.00	45.44
18866	NE2	GLN	D	97	-108.674	-2.818	17.509	1.00	43.75
18867	C	GLN	D	97	-107.045	-6.660	20.089	1.00	35.89
18868	O	GLN	D	97	-106.176	-7.333	20.644	1.00	34.79
18869	N	TRP	D	98	-107.872	-5.858	20.757	1.00	34.86
18870	CA	TRP	D	98	-107.759	-5.713	22.200	1.00	34.39
18871	CB	TRP	D	98	-107.954	-4.259	22.622	1.00	33.78
18872	CG	TRP	D	98	-107.147	-3.306	21.804	1.00	31.88
18873	CD1	TRP	D	98	-107.574	-2.115	21.269	1.00	29.98
18874	NE1	TRP	D	98	-106.553	-1.509	20.578	1.00	29.57
18875	CE2	TRP	D	98	-105.434	-2.303	20.655	1.00	30.00
18876	CD2	TRP	D	98	-105.776	-3.446	21.416	1.00	29.79
18877	CE3	TRP	D	98	-104.796	-4.421	21.632	1.00	29.20
18878	CZ3	TRP	D	98	-103.539	-4.238	21.089	1.00	28.94
18879	CH2	TRP	D	98	-103.232	-3.095	20.339	1.00	28.53
18880	CZ2	TRP	D	98	-104.167	-2.121	20.107	1.00	28.56
18881	C	TRP	D	98	-108.675	-6.669	22.964	1.00	34.42
18882	O	TRP	D	98	-108.842	-7.810	22.564	1.00	34.63
18883	N	ARG	D	99	-109.239	-6.229	24.076	1.00	34.58
18884	CA	ARG	D	99	-110.052	-7.129	24.888	1.00	34.95
18885	CB	ARG	D	99	-110.304	-6.549	26.278	1.00	34.75
18886	CG	ARG	D	99	-110.866	-7.562	27.244	1.00	35.56
18887	CD	ARG	D	99	-111.431	-6.975	28.536	1.00	37.79
18888	NE	ARG	D	99	-110.423	-6.374	29.400	1.00	38.21
18889	CZ	ARG	D	99	-109.616	-7.060	30.224	1.00	39.10
18890	NH1	ARG	D	99	-109.682	-8.383	30.263	1.00	37.89
18891	NH2	ARG	D	99	-108.736	-6.420	31.009	1.00	35.22
18892	C	ARG	D	99	-111.388	-7.497	24.267	1.00	35.24
18893	O	ARG	D	99	-111.866	-8.617	24.461	1.00	35.09
18894	N	HIS	D	100	-112.005	-6.549	23.561	1.00	35.52
18895	CA	HIS	D	100	-113.302	-6.797	22.928	1.00	36.27
18896	CB	HIS	D	100	-114.357	-5.800	23.427	1.00	36.19
18897	CG	HIS	D	100	-114.434	-5.688	24.915	1.00	36.00
18898	ND1	HIS	D	100	-115.035	-6.645	25.704	1.00	36.53
18899	CE1	HIS	D	100	-114.950	-6.282	26.973	1.00	35.21
18900	NE2	HIS	D	100	-114.307	-5.130	27.031	1.00	34.64
18901	CD2	HIS	D	100	-113.976	-4.736	25.760	1.00	34.03
18902	C	HIS	D	100	-113.184	-6.623	21.421	1.00	37.21
18903	O	HIS	D	100	-113.886	-7.279	20.650	1.00	36.96
18904	N	SER	D	101	-112.299	-5.710	21.025	1.00	38.32
18905	CA	SER	D	101	-112.084	-5.386	19.638	1.00	39.66
18906	CB	SER	D	101	-111.213	-4.137	19.477	1.00	39.82
18907	CG	SER	D	101	-110.019	-4.237	20.223	1.00	39.55
18908	C	SER	D	101	-111.464	-6.525	19.886	1.00	40.65
18909	O	SER	D	101	-110.700	-7.313	19.428	1.00	40.80
18910	N	TYR	D	102	-111.847	-6.594	17.621	1.00	42.09
18911	CA	TYR	D	102	-111.339	-7.556	16.677	1.00	43.32



**REPLACEMENT SHEET**  
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**FIGURE 3 NI**

A	B	C	D	E	F	G	H	I	J
18912	CB	TYR	D	102	-111.758	-8.988	17.015	1.00	43.40
18913	CG	TYR	D	102	-113.246	-9.306	16.979	1.00	43.83
18914	CD1	TYR	D	102	-113.883	-9.621	15.780	1.00	44.25
18915	CE1	TYR	D	102	-115.236	-9.945	15.744	1.00	43.98
18916	C2	TYR	D	102	-115.967	-9.973	16.922	1.00	44.41
18917	OH	TYR	D	102	-117.311	-10.301	16.887	1.00	43.54
18918	CE2	TYR	D	102	-115.351	-9.681	18.129	1.00	43.06
18919	CD2	TYR	D	102	-113.996	-9.358	18.151	1.00	43.54
18920	C	TYR	D	102	-111.796	-7.152	15.285	1.00	44.34
18921	O	TYR	D	102	-112.540	-6.185	15.093	1.00	43.86
18922	N	THR	D	103	-111.320	-7.907	14.317	1.00	45.77
18923	CA	THR	D	103	-111.582	-7.634	12.930	1.00	47.06
18924	CB	THR	D	103	-110.303	-7.059	12.321	1.00	47.16
18925	OG1	THR	D	103	-110.625	-6.135	11.278	1.00	47.95
18926	CG2	THR	D	103	-109.486	-8.139	11.646	1.00	47.43
18927	C	THR	D	103	-111.937	-8.981	12.336	1.00	47.65
18928	O	THR	D	103	-111.437	-10.007	12.796	1.00	47.29
18929	N	ALA	D	104	-112.835	-8.988	11.356	1.00	49.01
18930	CA	ALA	D	104	-113.252	-10.239	10.717	1.00	50.41
18931	CB	ALA	D	104	-114.139	-11.057	11.657	1.00	49.90
18932	C	ALA	D	104	-113.959	-10.039	9.377	1.00	51.59
18933	O	ALA	D	104	-114.330	-8.918	8.999	1.00	51.48
18934	N	SER	D	105	-114.118	-11.141	8.655	1.00	52.93
18935	CA	SER	D	105	-114.872	-11.131	7.414	1.00	54.56
18936	CB	SER	D	105	-114.257	-12.071	6.374	1.00	54.31
18937	OG	SER	D	105	-113.328	-11.387	5.553	1.00	54.83
18938	C	SER	D	105	-116.273	-11.591	7.763	1.00	55.67
18939	O	SER	D	105	-116.462	-12.339	8.729	1.00	55.62
18940	N	TYR	D	106	-117.247	-11.139	6.977	1.00	57.16
18941	CA	TYR	D	106	-118.649	-11.469	7.221	1.00	58.72
18942	CB	TYR	D	106	-119.347	-10.313	7.952	1.00	58.66
18943	CG	TYR	D	106	-118.833	-10.020	9.355	1.00	58.17
18944	CD1	TYR	D	106	-117.882	-9.029	9.584	1.00	57.42
18945	CE1	TYR	D	106	-117.422	-8.759	10.864	1.00	57.44
18946	C2	TYR	D	106	-117.926	-9.485	11.925	1.00	57.96
18947	OH	TYR	D	106	-117.499	-9.248	13.211	1.00	57.93
18948	CE2	TYR	D	106	-118.870	-10.463	11.714	1.00	58.05
18949	CD2	TYR	D	106	-119.315	-10.723	10.443	1.00	57.40
18950	C	TYR	D	106	-119.430	-11.785	5.942	1.00	59.84
18951	O	TYR	D	106	-119.341	-11.074	4.942	1.00	59.99
18952	N	ASP	D	107	-120.195	-12.865	5.983	1.00	61.24
18953	CA	ASP	D	107	-121.074	-13.208	4.881	1.00	62.79
18954	CB	ASP	D	107	-120.627	-14.489	4.177	1.00	62.64
18955	CG	ASP	D	107	-119.475	-14.259	3.225	1.00	63.77
18956	OD1	ASP	D	107	-119.417	-13.167	2.614	1.00	64.55
18957	OD2	ASP	D	107	-118.575	-15.110	3.030	1.00	64.76
18958	C	ASP	D	107	-122.459	-13.388	5.467	1.00	63.71
18959	O	ASP	D	107	-122.614	-13.966	6.538	1.00	63.78
18960	N	ILE	D	108	-123.463	-12.866	4.778	1.00	65.01
18961	CA	ILE	D	108	-124.833	-13.012	5.233	1.00	66.28
18962	CB	ILE	D	108	-125.633	-11.744	4.919	1.00	66.20

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**FIGURE 3 NJ**

A	B	C	D	E	F	G	H	I	J
18963	CG1	ILE	D	108	-124.917	-10.522	5.487	1.00	65.90
18964	CD1	ILE	D	108	-125.322	-9.229	4.838	1.00	65.83
18965	CG2	ILE	D	108	-127.044	-11.853	5.467	1.00	66.26
18966	C	ILE	D	108	-125.450	-14.210	4.533	1.00	67.30
18967	O	ILE	D	108	-125.363	-14.334	3.318	1.00	67.32
18968	N	TYR	D	109	-126.053	-15.105	5.302	1.00	68.69
18969	CA	TYR	D	109	-126.697	-16.266	4.718	1.00	69.84
18970	CB	TYR	D	109	-126.303	-17.535	5.456	1.00	69.90
18971	CG	TYR	D	109	-127.208	-18.719	5.197	1.00	71.09
18972	CD1	TYR	D	109	-127.045	-19.519	4.071	1.00	71.85
18973	CE1	TYR	D	109	-127.871	-20.613	3.849	1.00	72.41
18974	CZ	TYR	D	109	-128.867	-20.912	4.761	1.00	72.30
18975	OH	TYR	D	109	-129.701	-21.990	4.565	1.00	73.12
18976	CE2	TYR	D	109	-129.040	-20.133	5.878	1.00	72.36
18977	CD2	TYR	D	109	-128.215	-19.049	6.091	1.00	71.87
18978	C	TYR	D	109	-128.195	-16.058	4.754	1.00	70.68
18979	O	TYR	D	109	-128.742	-15.532	5.725	1.00	70.66
18980	N	ASP	D	110	-128.852	-16.462	3.675	1.00	71.68
18981	CA	ASP	D	110	-130.283	-16.284	3.539	1.00	72.51
18982	CB	ASP	D	110	-130.622	-16.051	2.066	1.00	72.59
18983	CG	ASP	D	110	-131.776	-15.096	1.874	1.00	72.74
18984	OD1	ASP	D	110	-132.882	-15.387	2.377	1.00	72.74
18985	OD2	ASP	D	110	-131.667	-14.028	1.231	1.00	72.64
18986	C	ASP	D	110	-130.973	-17.541	4.032	1.00	73.04
18987	O	ASP	D	110	-130.631	-18.644	3.610	1.00	73.06
18988	N	LEU	D	111	-131.935	-17.387	4.935	1.00	73.76
18989	CA	LEU	D	111	-132.669	-18.549	5.415	1.00	74.52
18990	CB	LEU	D	111	-133.836	-18.139	6.306	1.00	74.64
18991	CG	LEU	D	111	-133.705	-18.587	7.761	1.00	74.93
18992	CD1	LEU	D	111	-134.969	-18.249	8.531	1.00	75.05
18993	CD2	LEU	D	111	-133.428	-20.093	7.815	1.00	75.00
18994	C	LEU	D	111	-133.193	-19.360	4.242	1.00	74.88
18995	O	LEU	D	111	-133.080	-20.590	4.220	1.00	74.88
18996	N	ASN	D	112	-133.743	-18.650	3.259	1.00	75.22
18997	CA	ASN	D	112	-134.343	-19.280	2.084	1.00	75.36
18998	CB	ASN	D	112	-135.066	-18.231	1.217	1.00	75.30
18999	CG	ASN	D	112	-134.287	-17.841	-0.031	1.00	75.30
19000	OD1	ASN	D	112	-133.863	-18.698	-0.807	1.00	76.06
19001	ND2	ASN	D	112	-134.131	-16.540	-0.249	1.00	74.06
19002	C	ASN	D	112	-133.389	-20.158	1.256	1.00	75.42
19003	O	ASN	D	112	-132.166	-20.069	1.381	1.00	75.54
19004	N	LEU	D	116	-127.026	-18.276	0.911	1.00	72.76
19005	CA	LEU	D	116	-125.797	-17.461	1.077	1.00	72.77
19006	CB	LEU	D	116	-124.547	-18.284	0.774	1.00	72.85
19007	CG	LEU	D	116	-123.241	-17.815	1.421	1.00	73.32
19008	CD1	LEU	D	116	-123.052	-18.509	2.758	1.00	73.79
19009	CD2	LEU	D	116	-122.045	-18.083	0.515	1.00	73.55
19010	C	LEU	D	116	-125.860	-16.283	0.131	1.00	72.74
19011	O	LEU	D	116	-126.359	-16.389	-0.987	1.00	72.77
19012	N	ILE	D	117	-125.354	-15.148	0.582	1.00	72.64
19013	CA	ILE	D	117	-125.358	-13.960	-0.251	1.00	72.25

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**FIGURE 3 NK**

A	B	C	D	E	F	G	H	I	J
19014	CB	ILE	D	117	-125.816	-12.745	0.548	1.00	72.24
19015	CG1	ILE	D	117	-127.255	-12.953	1.012	1.00	72.43
19016	CD1	ILE	D	117	-127.974	-11.664	1.332	1.00	72.87
19017	CG2	ILE	D	117	-125.718	-11.486	-0.289	1.00	72.17
19018	C	ILE	D	117	-123.974	-13.761	-0.844	1.00	72.07
19019	O	ILE	D	117	-122.968	-14.129	-0.226	1.00	72.23
19020	N	THR	D	118	-123.934	-13.193	-2.049	1.00	71.58
19021	CA	THR	D	118	-122.689	-13.025	-2.789	1.00	71.02
19022	CB	THR	D	118	-122.687	-13.981	-3.968	1.00	71.07
19023	OG1	THR	D	118	-123.715	-13.584	-4.886	1.00	71.10
19024	CG2	THR	D	118	-123.124	-15.369	-3.517	1.00	71.27
19025	C	THR	D	118	-122.537	-11.615	-3.327	1.00	70.60
19026	O	THR	D	118	-121.457	-11.214	-3.762	1.00	70.73
19027	N	GLU	D	119	-123.626	-10.863	-3.303	1.00	69.83
19028	CA	GLU	D	119	-123.605	-9.515	-3.838	1.00	69.16
19029	CB	GLU	D	119	-124.845	-9.268	-4.699	1.00	69.35
19030	CG	GLU	D	119	-125.182	-7.797	-4.846	1.00	69.93
19031	CD	GLU	D	119	-125.356	-7.382	-6.290	1.00	70.41
19032	OE1	GLU	D	119	-126.374	-7.766	-6.908	1.00	69.96
19033	OE2	GLU	D	119	-124.467	-6.668	-6.801	1.00	70.62
19034	C	GLU	D	119	-123.471	-8.424	-2.779	1.00	68.55
19035	O	GLU	D	119	-124.180	-8.409	-1.770	1.00	68.12
19036	N	GLU	D	120	-122.546	-7.505	-3.031	1.00	67.97
19037	CA	GLU	D	120	-122.332	-6.389	-2.137	1.00	67.25
19038	CB	GLU	D	120	-123.639	-5.599	-2.023	1.00	67.27
19039	CG	GLU	D	120	-123.479	-4.091	-2.106	1.00	67.86
19040	CD	GLU	D	120	-122.505	-3.657	-3.187	1.00	68.83
19041	OE1	GLU	D	120	-122.954	-3.364	-4.314	1.00	69.63
19042	OE2	GLU	D	120	-121.287	-3.600	-2.904	1.00	68.90
19043	C	GLU	D	120	-121.867	-6.911	-0.771	1.00	66.58
19044	O	GLU	D	120	-122.200	-6.336	0.265	1.00	66.55
19045	N	ARG	D	121	-121.087	-7.994	-0.785	1.00	65.55
19046	CA	ARG	D	121	-120.622	-8.649	0.442	1.00	64.67
19047	CB	ARG	D	121	-119.613	-9.765	0.131	1.00	64.99
19048	CG	ARG	D	121	-120.208	-11.019	-0.472	1.00	65.62
19049	CD	ARG	D	121	-119.162	-12.018	-0.942	1.00	67.66
19050	NE	ARG	D	121	-118.595	-12.808	0.150	1.00	68.80
19051	CZ	ARG	D	121	-117.338	-13.233	0.188	1.00	70.07
19052	NH1	ARG	D	121	-116.508	-12.931	-0.800	1.00	70.63
19053	NH2	ARG	D	121	-116.907	-13.961	1.212	1.00	70.91
19054	C	ARG	D	121	-120.016	-7.676	1.446	1.00	63.70
19055	O	ARG	D	121	-119.550	-6.590	1.079	1.00	63.62
19056	N	ILE	D	122	-120.032	-8.069	2.719	1.00	62.24
19057	CA	ILE	D	122	-119.464	-7.225	3.767	1.00	60.81
19058	CB	ILE	D	122	-119.882	-7.716	5.169	1.00	60.82
19059	CG1	ILE	D	122	-121.350	-7.371	5.431	1.00	60.51
19060	CD1	ILE	D	122	-121.985	-8.143	6.584	1.00	60.01
19061	CG2	ILE	D	122	-119.035	-7.057	6.228	1.00	60.74
19062	C	ILE	D	122	-117.958	-7.232	3.603	1.00	59.48
19063	O	ILE	D	122	-117.360	-8.292	3.438	1.00	59.65
19064	N	PRO	D	123	-117.347	-6.054	3.636	1.00	58.43

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**FIGURE 3 NL**

A	B	C	D	E	F	G	H	I	J
19065	CA	PRO	D	123	-115.900	-5.925	3.424	1.00	57.67
19066	CB	PRO	D	123	-115.632	-4.443	3.697	1.00	57.56
19067	CG	PRO	D	123	-116.930	-3.768	3.545	1.00	57.74
19068	CD	PRO	D	123	-117.991	-4.759	3.907	1.00	58.33
19069	C	PRO	D	123	-115.091	-6.757	4.400	1.00	57.15
19070	O	PRO	D	123	-115.505	-6.943	5.543	1.00	56.86
19071	N	ASN	D	124	-113.954	-7.271	3.947	1.00	56.83
19072	CA	ASN	D	124	-113.045	-7.962	4.843	1.00	56.33
19073	CB	ASN	D	124	-111.920	-8.643	4.069	1.00	56.81
19074	CG	ASN	D	124	-112.432	-9.582	3.011	1.00	58.53
19075	OD1	ASN	D	124	-112.759	-10.738	3.295	1.00	58.70
19076	ND2	ASN	D	124	-112.509	-9.092	1.771	1.00	63.09
19077	C	ASN	D	124	-112.459	-6.898	5.750	1.00	55.47
19078	O	ASN	D	124	-112.560	-5.700	5.456	1.00	55.37
19079	N	ASN	D	125	-111.847	-7.330	6.847	1.00	54.44
19080	CA	ASN	D	125	-111.243	-6.405	7.793	1.00	53.40
19081	CB	ASN	D	125	-110.092	-5.644	7.128	1.00	53.69
19082	CG	ASN	D	125	-108.980	-6.576	6.639	1.00	54.78
19083	OD1	ASN	D	125	-108.700	-6.657	5.438	1.00	55.43
19084	ND2	ASN	D	125	-108.341	-7.284	7.574	1.00	55.14
19085	C	ASN	D	125	-112.278	-5.448	8.383	1.00	52.51
19086	O	ASN	D	125	-111.966	-4.307	8.731	1.00	52.05
19087	N	THR	D	126	-113.517	-5.920	8.482	1.00	51.47
19088	CA	THR	D	126	-114.582	-5.121	9.061	1.00	50.59
19089	CB	THR	D	126	-115.957	-5.638	8.610	1.00	50.76
19090	OG1	THR	D	126	-116.178	-5.246	7.242	1.00	51.43
19091	CG2	THR	D	126	-117.081	-4.929	9.371	1.00	49.95
19092	C	THR	D	126	-114.424	-5.106	10.585	1.00	50.03
19093	O	THR	D	126	-114.283	-6.148	11.227	1.00	49.49
19094	N	GLN	D	127	-114.438	-3.905	11.149	1.00	49.48
19095	CA	GLN	D	127	-114.150	-3.703	12.565	1.00	48.83
19096	CB	GLN	D	127	-113.690	-2.274	12.783	1.00	48.55
19097	CG	GLN	D	127	-112.395	-1.968	12.076	1.00	48.02
19098	CD	GLN	D	127	-112.246	-0.505	11.773	1.00	47.42
19099	OE1	GLN	D	127	-111.215	0.101	12.073	1.00	47.05
19100	NE2	GLN	D	127	-113.273	0.073	11.175	1.00	47.63
19101	C	GLN	D	127	-115.300	-4.025	13.497	1.00	48.68
19102	O	GLN	D	127	-115.085	-4.349	14.666	1.00	48.22
19103	N	TRP	D	128	-116.520	-3.943	12.985	1.00	48.58
19104	CA	TRP	D	128	-117.686	-4.236	13.804	1.00	48.57
19105	CB	TRP	D	128	-117.785	-3.224	14.941	1.00	48.61
19106	CG	TRP	D	128	-118.920	-3.469	15.859	1.00	48.73
19107	CD1	TRP	D	128	-120.091	-2.772	15.920	1.00	49.51
19108	NE1	TRP	D	128	-120.898	-3.293	16.903	1.00	50.23
19109	CE2	TRP	D	128	-120.251	-4.346	17.495	1.00	49.20
19110	CD2	TRP	D	128	-119.004	-4.483	16.861	1.00	49.16
19111	CE3	TRP	D	128	-118.146	-5.497	17.292	1.00	49.46
19112	CZ3	TRP	D	128	-118.550	-6.319	18.315	1.00	49.93
19113	CH2	TRP	D	128	-119.795	-6.157	18.922	1.00	49.45
19114	CZ2	TRP	D	128	-120.657	-5.176	18.528	1.00	49.26
19115	C	TRP	D	128	-118.967	-4.198	12.999	1.00	48.57

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**FIGURE 3 NM**

A	B	C	D	E	F	G	H	I	J
19116	O	TRP	D	128	-119.195	-3.286	12.215	1.00	48.33
19117	N	VAL	D	129	-119.810	-5.195	13.193	1.00	49.01
19118	CA	VAL	D	129	-121.094	-5.208	12.515	1.00	49.67
19119	CB	VAL	D	129	-121.119	-6.213	11.356	1.00	49.72
19120	CG1	VAL	D	129	-120.447	-7.495	11.762	1.00	49.39
19121	CG2	VAL	D	129	-122.557	-6.454	10.889	1.00	49.71
19122	C	VAL	D	129	-122.209	-5.509	13.502	1.00	49.93
19123	O	VAL	D	129	-122.088	-6.404	14.337	1.00	49.80
19124	N	THR	D	130	-123.296	-4.754	13.395	1.00	50.50
19125	CA	THR	D	130	-124.420	-4.922	14.296	1.00	51.14
19126	CB	THR	D	130	-124.385	-3.833	15.364	1.00	51.17
19127	OG1	THR	D	130	-125.549	-3.945	16.191	1.00	51.18
19128	CG2	THR	D	130	-124.541	-2.472	14.713	1.00	51.04
19129	C	THR	D	130	-125.767	-4.868	13.589	1.00	51.70
19130	O	THR	D	130	-126.021	-3.986	12.766	1.00	51.85
19131	N	TRP	D	131	-126.628	-5.821	13.929	1.00	52.17
19132	CA	TRP	D	131	-127.992	-5.862	13.425	1.00	52.29
19133	CB	TRP	D	131	-128.630	-7.222	13.728	1.00	52.28
19134	CG	TRP	D	131	-128.260	-8.344	12.812	1.00	51.72
19135	CD1	TRP	D	131	-127.645	-9.507	13.156	1.00	52.54
19136	NE1	TRP	D	131	-127.487	-10.310	12.050	1.00	51.98
19137	CE2	TRP	D	131	-128.016	-9.670	10.961	1.00	51.62
19138	CD2	TRP	D	131	-128.521	-8.432	11.406	1.00	51.68
19139	CE3	TRP	D	131	-129.123	-7.582	10.469	1.00	50.91
19140	CZ3	TRP	D	131	-129.193	-7.988	9.150	1.00	50.91
19141	CH2	TRP	D	131	-128.684	-9.223	8.745	1.00	51.06
19142	CZ2	TRP	D	131	-128.094	-10.077	9.633	1.00	51.33
19143	C	TRP	D	131	-128.822	-4.804	14.133	1.00	52.55
19144	O	TRP	D	131	-128.423	-4.278	15.175	1.00	52.62
19145	N	SER	D	132	-129.975	-4.491	13.548	1.00	52.94
19146	CA	SER	D	132	-130.971	-3.617	14.152	1.00	52.94
19147	CB	SER	D	132	-132.122	-3.375	13.171	1.00	53.12
19148	OG	SER	D	132	-131.735	-2.586	12.071	1.00	53.77
19149	C	SER	D	132	-131.543	-4.395	15.317	1.00	52.84
19150	O	SER	D	132	-131.464	-5.620	15.336	1.00	52.63
19151	N	PRO	D	133	-132.139	-3.703	16.276	1.00	52.97
19152	CA	PRO	D	133	-132.754	-4.378	17.420	1.00	53.51
19153	CB	PRO	D	133	-133.206	-3.221	18.317	1.00	53.54
19154	CG	PRO	D	133	-132.435	-2.035	17.837	1.00	53.15
19155	CD	PRO	D	133	-132.264	-2.240	16.358	1.00	53.16
19156	C	PRO	D	133	-133.945	-5.193	16.933	1.00	54.07
19157	O	PRO	D	133	-134.241	-6.255	17.482	1.00	54.04
19158	N	VAL	D	134	-134.615	-4.681	15.901	1.00	54.63
19159	CA	VAL	D	134	-135.711	-5.383	15.241	1.00	54.97
19160	CB	VAL	D	134	-137.041	-4.623	15.383	1.00	55.20
19161	CG1	VAL	D	134	-137.425	-4.443	16.859	1.00	56.05
19162	CG2	VAL	D	134	-136.956	-3.278	14.683	1.00	55.03
19163	C	VAL	D	134	-135.406	-5.481	13.747	1.00	54.97
19164	O	VAL	D	134	-134.654	-4.676	13.208	1.00	54.98
19165	N	GLY	D	135	-135.988	-6.466	13.076	1.00	54.98
19166	CA	GLY	D	135	-135.831	-6.577	11.635	1.00	55.15

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**FIGURE 3 NN**

A	B	C	D	E	F	G	H	I	J
19167	C	GLY	D	135	-134.533	-7.189	11.139	1.00	55.05
19168	O	GLY	D	135	-134.098	-8.238	11.632	1.00	55.19
19169	N	HIS	D	136	-133.922	-6.547	10.145	1.00	54.59
19170	CA	HIS	D	136	-132.689	-7.068	9.566	1.00	54.42
19171	CB	HIS	D	136	-132.984	-8.200	8.573	1.00	54.83
19172	CG	HIS	D	136	-133.761	-7.766	7.368	1.00	55.85
19173	ND1	HIS	D	136	-135.036	-8.217	7.107	1.00	56.99
19174	CE1	HIS	D	136	-135.472	-7.675	5.984	1.00	56.89
19175	NE2	HIS	D	136	-134.525	-6.890	5.505	1.00	57.44
19176	CD2	HIS	D	136	-133.443	-6.929	6.352	1.00	56.44
19177	C	HIS	D	136	-131.812	-6.014	8.903	1.00	53.87
19178	O	HIS	D	136	-131.034	-6.334	8.005	1.00	53.71
19179	N	LYS	D	137	-131.944	-4.763	9.327	1.00	53.46
19180	CA	LYS	D	137	-131.046	-3.721	8.848	1.00	53.39
19181	CB	LYS	D	137	-131.518	-2.345	9.298	1.00	53.41
19182	CG	LYS	D	137	-132.872	-1.994	8.752	1.00	53.27
19183	CD	LYS	D	137	-133.505	-0.854	9.498	1.00	53.95
19184	CE	LYS	D	137	-132.758	0.448	9.304	1.00	53.85
19185	NZ	LYS	D	137	-133.705	1.591	9.518	1.00	54.00
19186	C	LYS	D	137	-129.660	-4.031	9.407	1.00	53.29
19187	O	LYS	D	137	-129.525	-4.865	10.304	1.00	52.90
19188	N	LEU	D	138	-128.636	-3.363	8.885	1.00	53.28
19189	CA	LEU	D	138	-127.267	-3.692	9.262	1.00	53.28
19190	CB	LEU	D	138	-126.714	-4.705	8.252	1.00	53.54
19191	CG	LEU	D	138	-125.875	-5.902	8.701	1.00	54.30
19192	CD1	LEU	D	138	-126.255	-6.391	10.088	1.00	54.55
19193	CD2	LEU	D	138	-126.046	-7.019	7.695	1.00	55.20
19194	C	LEU	D	138	-126.366	-2.465	9.313	1.00	52.93
19195	O	LEU	D	138	-126.380	-1.644	8.404	1.00	53.28
19196	N	ALA	D	139	-125.600	-2.330	10.390	1.00	52.47
19197	CA	ALA	D	139	-124.610	-1.264	10.494	1.00	51.88
19198	CB	ALA	D	139	-124.991	-0.252	11.555	1.00	51.86
19199	C	ALA	D	139	-123.274	-1.913	10.820	1.00	51.49
19200	O	ALA	D	139	-123.201	-2.811	11.654	1.00	51.73
19201	N	TYR	D	140	-122.223	-1.481	10.139	1.00	50.77
19202	CA	TYR	D	140	-120.905	-2.043	10.367	1.00	50.11
19203	CB	TYR	D	140	-120.615	-3.162	9.362	1.00	50.32
19204	CG	TYR	D	140	-120.595	-2.693	7.924	1.00	51.56
19205	CD1	TYR	D	140	-119.491	-2.030	7.412	1.00	52.15
19206	CE1	TYR	D	140	-119.461	-1.595	6.108	1.00	52.91
19207	CZ	TYR	D	140	-120.546	-1.811	5.284	1.00	53.56
19208	OH	TYR	D	140	-120.493	-1.357	3.978	1.00	53.81
19209	CE2	TYR	D	140	-121.661	-2.471	5.765	1.00	52.68
19210	CD2	TYR	D	140	-121.683	-2.907	7.080	1.00	51.80
19211	C	TYR	D	140	-119.869	-0.938	10.271	1.00	49.24
19212	O	TYR	D	140	-120.156	0.137	9.750	1.00	49.17
19213	N	VAL	D	141	-118.676	-1.186	10.805	1.00	48.39
19214	CA	VAL	D	141	-117.602	-0.202	10.738	1.00	47.57
19215	CB	VAL	D	141	-117.171	0.300	12.142	1.00	47.62
19216	CG1	VAL	D	141	-118.347	0.930	12.868	1.00	46.94
19217	CG2	VAL	D	141	-116.027	1.311	12.041	1.00	47.46

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**FIGURE 3 NO**

A	B	C	D	E	F	G	H	I	J
19218	C	VAL	D	141	-116.423	-0.792	9.976	1.00	47.21
19219	O	VAL	D	141	-116.019	-1.925	10.219	1.00	46.92
19220	N	TRP	D	142	-115.904	-0.025	9.024	1.00	46.99
19221	CA	TRP	D	142	-114.798	-0.466	8.190	1.00	46.91
19222	CB	TRP	D	142	-115.311	-1.002	6.859	1.00	47.22
19223	CG	TRP	D	142	-114.223	-1.473	5.930	1.00	48.90
19224	CD1	TRP	D	142	-113.537	-2.650	6.001	1.00	49.87
19225	NE1	TRP	D	142	-112.625	-2.732	4.976	1.00	50.83
19226	CE2	TRP	D	142	-112.712	-1.595	4.216	1.00	51.60
19227	CD2	TRP	D	142	-113.713	-0.783	4.786	1.00	49.90
19228	CE3	TRP	D	142	-113.993	0.450	4.186	1.00	51.17
19229	CZ3	TRP	D	142	-113.285	0.825	3.053	1.00	51.25
19230	CH2	TRP	D	142	-112.296	-0.004	2.513	1.00	52.35
19231	CZ2	TRP	D	142	-111.997	-1.218	3.073	1.00	52.69
19232	C	TRP	D	142	-113.885	0.725	7.981	1.00	46.62
19233	O	TRP	D	142	-114.353	1.822	7.653	1.00	46.66
19234	N	ASN	D	143	-112.591	0.514	8.200	1.00	46.03
19235	CA	ASN	D	143	-111.612	1.596	8.142	1.00	45.74
19236	CB	ASN	D	143	-111.260	1.978	6.700	1.00	46.35
19237	CG	ASN	D	143	-110.210	1.057	6.091	1.00	48.02
19238	OD1	ASN	D	143	-109.817	1.227	4.940	1.00	52.57
19239	ND2	ASN	D	143	-109.756	0.075	6.860	1.00	48.41
19240	C	ASN	D	143	-112.093	2.802	8.920	1.00	44.61
19241	O	ASN	D	143	-112.108	3.924	8.416	1.00	44.48
19242	N	ASN	D	144	-112.520	2.544	10.148	1.00	43.39
19243	CA	ASN	D	144	-112.984	3.596	11.046	1.00	42.57
19244	CB	ASN	D	144	-111.816	4.505	11.452	1.00	42.15
19245	CG	ASN	D	144	-110.758	3.772	12.268	1.00	40.44
19246	OD1	ASN	D	144	-109.975	4.389	12.977	1.00	39.55
19247	ND2	ASN	D	144	-110.742	2.453	12.174	1.00	38.08
19248	C	ASN	D	144	-114.173	4.423	10.544	1.00	42.38
19249	O	ASN	D	144	-114.345	5.577	10.952	1.00	42.50
19250	N	ASP	D	145	-114.984	3.845	9.663	1.00	41.79
19251	CA	ASP	D	145	-116.189	4.525	9.193	1.00	41.96
19252	CB	ASP	D	145	-116.037	5.058	7.772	1.00	41.95
19253	CG	ASP	D	145	-115.429	6.420	7.736	1.00	41.04
19254	OD1	ASP	D	145	-114.538	6.630	6.895	1.00	42.43
19255	OD2	ASP	D	145	-115.768	7.342	8.504	1.00	41.45
19256	C	ASP	D	145	-117.432	3.655	9.290	1.00	41.86
19257	O	ASP	D	145	-117.357	2.427	9.228	1.00	41.53
19258	N	ILE	D	146	-118.570	4.316	9.451	1.00	42.16
19259	CA	ILE	D	146	-119.843	3.638	9.641	1.00	43.35
19260	CB	ILE	D	146	-120.714	4.435	10.651	1.00	43.25
19261	CG1	ILE	D	146	-119.979	4.562	11.989	1.00	43.13
19262	CD1	ILE	D	146	-120.669	5.444	12.985	1.00	42.36
19263	CG2	ILE	D	146	-122.079	3.786	10.834	1.00	42.53
19264	C	ILE	D	146	-120.598	3.458	8.329	1.00	44.18
19265	O	ILE	D	146	-120.713	4.387	7.543	1.00	43.72
19266	N	TYR	D	147	-121.108	2.253	8.110	1.00	45.80
19267	CA	TYR	D	147	-121.886	1.946	6.919	1.00	47.62
19268	CB	TYR	D	147	-121.134	0.986	6.000	1.00	47.70

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**FIGURE 3 NP**

A	B	C	D	E	F	G	H	I	J
19269	CG	TYR	D	147	-119.868	1.515	5.372	1.00	49.63
19270	CD1	TYR	D	147	-119.894	2.148	4.140	1.00	51.43
19271	CE1	TYR	D	147	-118.737	2.619	3.549	1.00	51.99
19272	CZ	TYR	D	147	-117.530	2.443	4.185	1.00	53.08
19273	OH	TYR	D	147	-116.372	2.912	3.605	1.00	54.67
19274	CE2	TYR	D	147	-117.473	1.802	5.404	1.00	52.35
19275	CD2	TYR	D	147	-118.638	1.340	5.989	1.00	50.98
19276	C	TYR	D	147	-123.210	1.285	7.309	1.00	48.25
19277	O	TYR	D	147	-123.256	0.458	8.224	1.00	48.03
19278	N	VAL	D	148	-124.277	1.623	6.592	1.00	49.17
19279	CA	VAL	D	148	-125.575	1.023	6.870	1.00	50.14
19280	CB	VAL	D	148	-126.579	2.060	7.410	1.00	50.11
19281	CG1	VAL	D	148	-127.927	1.416	7.638	1.00	49.82
19282	CG2	VAL	D	148	-126.068	2.679	8.707	1.00	49.73
19283	C	VAL	D	148	-126.199	0.339	5.662	1.00	51.12
19284	O	VAL	D	148	-126.381	0.959	4.613	1.00	51.21
19285	N	LYS	D	149	-126.504	-0.948	5.814	1.00	52.15
19286	CA	LYS	D	149	-127.238	-1.696	4.795	1.00	53.34
19287	CB	LYS	D	149	-126.630	-3.081	4.568	1.00	53.22
19288	CG	LYS	D	149	-125.433	-3.103	3.635	1.00	54.73
19289	CD	LYS	D	149	-125.032	-4.528	3.269	1.00	56.28
19290	CE	LYS	D	149	-124.096	-4.518	2.068	1.00	58.45
19291	NZ	LYS	D	149	-123.459	-3.167	1.889	1.00	59.46
19292	C	LYS	D	149	-128.681	-1.865	5.265	1.00	53.90
19293	O	LYS	D	149	-128.930	-2.407	6.348	1.00	54.32
19294	N	ILE	D	150	-129.638	-1.383	4.481	1.00	54.47
19295	CA	ILE	D	150	-131.030	-1.574	4.860	1.00	54.83
19296	CB	ILE	D	150	-131.948	-0.562	4.198	1.00	54.84
19297	CG1	ILE	D	150	-132.012	0.732	5.014	1.00	55.22
19298	CD1	ILE	D	150	-130.687	1.265	5.454	1.00	57.03
19299	CG2	ILE	D	150	-133.353	-1.140	4.117	1.00	54.79
19300	C	ILE	D	150	-131.438	-2.977	4.463	1.00	55.15
19301	O	ILE	D	150	-132.313	-3.587	5.084	1.00	55.26
19302	N	GLU	D	151	-130.771	-3.491	3.433	1.00	55.67
19303	CA	GLU	D	151	-131.050	-4.822	2.915	1.00	56.17
19304	CB	GLU	D	151	-131.914	-4.725	1.652	1.00	56.22
19305	CG	GLU	D	151	-133.279	-4.082	1.856	1.00	56.08
19306	CD	GLU	D	151	-134.211	-4.936	2.692	1.00	56.08
19307	OE1	GLU	D	151	-133.987	-6.160	2.756	1.00	56.09
19308	OE2	GLU	D	151	-135.167	-4.389	3.285	1.00	56.41
19309	C	GLU	D	151	-129.755	-5.558	2.595	1.00	56.55
19310	O	GLU	D	151	-128.898	-5.057	1.875	1.00	56.69
19311	N	PRO	D	152	-129.634	-6.771	3.104	1.00	57.10
19312	CA	PRO	D	152	-128.405	-7.556	2.956	1.00	57.89
19313	CB	PRO	D	152	-128.844	-8.953	3.382	1.00	57.70
19314	CG	PRO	D	152	-129.949	-8.704	4.339	1.00	57.44
19315	CD	PRO	D	152	-130.686	-7.500	3.830	1.00	57.04
19316	C	PRO	D	152	-127.846	-7.592	1.535	1.00	58.84
19317	O	PRO	D	152	-126.626	-7.619	1.365	1.00	59.09
19318	N	ASN	D	153	-128.720	-7.594	0.535	1.00	59.72
19319	CA	ASN	D	153	-128.285	-7.696	-0.852	1.00	60.60



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**FIGURE 3 NQ**

A	B	C	D	E	F	G	H	I	J
19320	CB	ASN	D	153	-129.319	-8.488	-1.666	1.00	60.74
19321	CG	ASN	D	153	-128.679	-9.390	-2.733	1.00	62.12
19322	OD1	ASN	D	153	-127.457	-9.598	-2.754	1.00	62.65
19323	ND2	ASN	D	153	-129.513	-9.935	-3.619	1.00	62.19
19324	C	ASN	D	153	-128.033	-6.338	-1.502	1.00	60.92
19325	O	ASN	D	153	-127.583	-6.269	-2.644	1.00	61.11
19326	N	LEU	D	154	-128.296	-5.261	-0.770	1.00	61.44
19327	CA	LEU	D	154	-128.196	-3.912	-1.337	1.00	61.99
19328	CB	LEU	D	154	-129.433	-3.093	-0.973	1.00	61.89
19329	CG	LEU	D	154	-130.733	-3.545	-1.639	1.00	62.88
19330	CD1	LEU	D	154	-130.479	-4.018	-3.071	1.00	63.19
19331	CD2	LEU	D	154	-131.773	-2.425	-1.603	1.00	63.11
19332	C	LEU	D	154	-126.936	-3.135	-0.963	1.00	62.40
19333	O	LEU	D	154	-126.287	-3.425	0.042	1.00	62.58
19334	N	PRO	D	155	-126.618	-2.129	-1.778	1.00	62.71
19335	CA	PRO	D	155	-125.437	-1.279	-1.585	1.00	62.86
19336	CB	PRO	D	155	-125.663	-0.153	-2.604	1.00	62.88
19337	CG	PRO	D	155	-127.126	-0.249	-2.911	1.00	62.68
19338	CD	PRO	D	155	-127.373	-1.721	-2.974	1.00	62.65
19339	C	PRO	D	155	-125.346	-0.684	-0.186	1.00	62.91
19340	O	PRO	D	155	-126.345	-0.600	0.528	1.00	62.98
19341	N	SER	D	156	-124.147	-0.239	0.176	1.00	62.87
19342	CA	SER	D	156	-123.904	0.301	1.501	1.00	62.90
19343	CB	SER	D	156	-122.579	-0.225	2.033	1.00	63.05
19344	OG	SER	D	156	-122.680	-0.457	3.420	1.00	64.11
19345	C	SER	D	156	-123.905	1.821	1.549	1.00	62.65
19346	O	SER	D	156	-123.365	2.493	0.667	1.00	62.59
19347	N	TYR	D	157	-124.506	2.369	2.598	1.00	62.27
19348	CA	TYR	D	157	-124.555	3.818	2.757	1.00	61.78
19349	CB	TYR	D	157	-125.901	4.267	3.317	1.00	62.14
19350	CG	TYR	D	157	-127.060	4.081	2.376	1.00	63.55
19351	CD1	TYR	D	157	-127.490	5.121	1.553	1.00	65.01
19352	CE1	TYR	D	157	-128.557	4.947	0.694	1.00	66.14
19353	CZ	TYR	D	157	-129.203	3.722	0.658	1.00	66.09
19354	OH	TYR	D	157	-130.268	3.516	-0.184	1.00	66.86
19355	CE2	TYR	D	157	-128.794	2.685	1.467	1.00	65.51
19356	CD2	TYR	D	157	-127.734	2.869	2.317	1.00	64.70
19357	C	TYR	D	157	-123.455	4.328	3.674	1.00	60.96
19358	O	TYR	D	157	-123.386	3.942	4.838	1.00	61.11
19359	N	ARG	D	158	-122.603	5.197	3.139	1.00	59.75
19360	CA	ARG	D	158	-121.532	5.802	3.911	1.00	58.41
19361	CB	ARG	D	158	-120.521	6.473	2.980	1.00	58.83
19362	CG	ARG	D	158	-119.328	5.616	2.557	1.00	59.53
19363	CD	ARG	D	158	-118.062	5.897	3.359	1.00	61.65
19364	NE	ARG	D	158	-116.839	5.483	2.675	1.00	62.55
19365	CZ	ARG	D	158	-115.660	6.077	2.844	1.00	63.50
19366	NH1	ARG	D	158	-115.539	7.100	3.684	1.00	62.39
19367	NH2	ARG	D	158	-114.597	5.643	2.182	1.00	64.32
19368	C	ARG	D	158	-122.132	6.852	4.826	1.00	57.27
19369	O	ARG	D	158	-122.639	7.883	4.352	1.00	56.83
19370	N	ILE	D	159	-122.099	6.590	6.131	1.00	55.59

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**FIGURE 3 NR**

A	B	C	D	E	F	G	H	I	J
19371	CA	ILE	D	159	-122.573	7.572	7.084	1.00	53.90
19372	CB	ILE	D	159	-123.031	6.926	8.387	1.00	54.00
19373	CG1	ILE	D	159	-124.297	6.118	8.173	1.00	53.91
19374	CD1	ILE	D	159	-124.039	4.683	7.912	1.00	55.57
19375	CG2	ILE	D	159	-123.294	7.993	9.432	1.00	53.93
19376	C	ILE	D	159	-121.452	8.551	7.374	1.00	52.93
19377	O	ILE	D	159	-121.678	9.754	7.485	1.00	52.51
19378	N	THR	D	160	-120.235	8.034	7.504	1.00	52.05
19379	CA	THR	D	160	-119.096	8.894	7.824	1.00	51.01
19380	CB	THR	D	160	-118.529	8.603	9.246	1.00	50.81
19381	OG1	THR	D	160	-118.337	7.191	9.421	1.00	49.35
19382	CG2	THR	D	160	-119.545	8.970	10.293	1.00	50.05
19383	C	THR	D	160	-117.982	8.816	6.807	1.00	50.79
19384	O	THR	D	160	-117.764	7.787	6.175	1.00	50.59
19385	N	TRP	D	161	-117.265	9.920	6.692	1.00	51.02
19386	CA	TRP	D	161	-116.172	10.050	5.747	1.00	51.50
19387	CB	TRP	D	161	-116.579	11.048	4.656	1.00	51.88
19388	CG	TRP	D	161	-117.716	10.579	3.817	1.00	52.73
19389	CD1	TRP	D	161	-119.048	10.661	4.107	1.00	53.73
19390	NE1	TRP	D	161	-119.789	10.116	3.084	1.00	54.35
19391	CE2	TRP	D	161	-118.936	9.675	2.106	1.00	54.33
19392	CD2	TRP	D	161	-117.623	9.950	2.538	1.00	54.16
19393	CE3	TRP	D	161	-116.557	9.595	1.706	1.00	55.05
19394	CZ3	TRP	D	161	-116.828	8.983	0.501	1.00	55.45
19395	CH2	TRP	D	161	-118.142	8.721	0.102	1.00	55.33
19396	CZ2	TRP	D	161	-119.207	9.060	0.886	1.00	54.84
19397	C	TRP	D	161	-114.914	10.562	6.441	1.00	51.28
19398	O	TRP	D	161	-113.918	10.849	5.784	1.00	51.69
19399	N	THR	D	162	-114.960	10.675	7.765	1.00	50.76
19400	CA	THR	D	162	-113.838	11.225	8.523	1.00	50.57
19401	CB	THR	D	162	-114.353	12.097	9.699	1.00	50.82
19402	OG1	THR	D	162	-115.450	11.443	10.361	1.00	49.95
19403	CG2	THR	D	162	-114.983	13.397	9.165	1.00	51.04
19404	C	THR	D	162	-112.805	10.214	9.027	1.00	50.33
19405	O	THR	D	162	-111.738	10.605	9.473	1.00	50.51
19406	N	GLY	D	163	-113.111	8.925	8.933	1.00	50.05
19407	CA	GLY	D	163	-112.219	7.881	9.410	1.00	49.47
19408	C	GLY	D	163	-110.746	7.944	9.026	1.00	49.18
19409	O	GLY	D	163	-110.382	8.061	7.857	1.00	49.48
19410	N	LYS	D	164	-109.886	7.852	10.032	1.00	48.57
19411	CA	LYS	D	164	-108.447	7.826	9.815	1.00	47.59
19412	CB	LYS	D	164	-107.862	9.237	9.799	1.00	48.00
19413	CG	LYS	D	164	-106.443	9.303	9.252	1.00	48.18
19414	CD	LYS	D	164	-105.899	10.721	9.351	1.00	50.62
19415	CE	LYS	D	164	-104.506	10.842	8.722	1.00	51.69
19416	NZ	LYS	D	164	-103.882	12.164	9.030	1.00	52.29
19417	C	LYS	D	164	-107.802	6.989	10.909	1.00	46.77
19418	O	LYS	D	164	-107.955	7.280	12.098	1.00	46.34
19419	N	GLU	D	165	-107.088	5.949	10.482	1.00	45.96
19420	CA	GLU	D	165	-106.421	4.992	11.358	1.00	45.15
19421	CB	GLU	D	165	-105.426	4.156	10.550	1.00	45.79

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**FIGURE 3 NS**

A	B	C	D	E	F	G	H	I	J
19422	CG	GLU	D	165	-104.424	3.379	11.389	1.00	48.11
19423	CD	GLU	D	165	-103.887	2.158	10.660	1.00	50.89
19424	OE1	GLU	D	165	-103.038	2.325	9.751	1.00	52.11
19425	OE2	GLU	D	165	-104.324	1.033	10.990	1.00	50.88
19426	C	GLU	D	165	-105.723	5.672	12.520	1.00	43.98
19427	O	GLU	D	165	-104.946	6.603	12.313	1.00	43.28
19428	N	ASN	D	166	-106.035	5.215	13.738	1.00	42.69
19429	CA	ASN	D	166	-105.470	5.765	14.970	1.00	41.42
19430	CB	ASN	D	166	-103.945	5.589	15.006	1.00	41.08
19431	CG	ASN	D	166	-103.490	4.134	14.826	1.00	40.59
19432	OD1	ASN	D	166	-104.158	3.181	15.230	1.00	39.05
19433	ND2	ASN	D	166	-102.314	3.973	14.244	1.00	41.57
19434	C	ASN	D	166	-105.799	7.242	15.248	1.00	41.24
19435	O	ASN	D	166	-105.270	7.822	16.189	1.00	41.55
19436	N	ILE	D	167	-106.656	7.873	14.453	1.00	40.53
19437	CA	ILE	D	167	-106.919	9.300	14.680	1.00	39.73
19438	CB	ILE	D	167	-106.313	10.183	13.545	1.00	40.06
19439	CG1	ILE	D	167	-104.794	10.065	13.511	1.00	40.35
19440	CD1	ILE	D	167	-104.307	8.928	12.682	1.00	42.19
19441	CG2	ILE	D	167	-106.646	11.659	13.734	1.00	40.09
19442	C	ILE	D	167	-108.400	9.599	14.884	1.00	38.82
19443	O	ILE	D	167	-108.779	10.248	15.855	1.00	38.90
19444	N	ILE	D	168	-109.233	9.122	13.968	1.00	37.79
19445	CA	ILE	D	168	-110.668	9.321	14.060	1.00	36.40
19446	CB	ILE	D	168	-111.190	10.247	12.920	1.00	36.61
19447	CG1	ILE	D	168	-110.993	11.711	13.300	1.00	35.98
19448	CD1	ILE	D	168	-109.627	12.174	13.119	1.00	36.15
19449	CG2	ILE	D	168	-112.676	10.035	12.686	1.00	35.01
19450	C	ILE	D	168	-111.368	7.990	13.999	1.00	36.30
19451	O	ILE	D	168	-111.141	7.221	13.073	1.00	35.83
19452	N	TYR	D	169	-112.229	7.721	14.985	1.00	35.99
19453	CA	TYR	D	169	-112.982	6.471	15.026	1.00	35.20
19454	CB	TYR	D	169	-112.652	5.639	16.288	1.00	34.82
19455	CG	TYR	D	169	-111.196	5.355	16.631	1.00	32.44
19456	CD1	TYR	D	169	-110.329	6.378	17.005	1.00	31.54
19457	CE1	TYR	D	169	-109.019	6.126	17.342	1.00	28.27
19458	CZ	TYR	D	169	-108.549	4.839	17.324	1.00	30.04
19459	OH	TYR	D	169	-107.231	4.592	17.663	1.00	30.23
19460	CE2	TYR	D	169	-109.389	3.788	16.966	1.00	29.76
19461	CD2	TYR	D	169	-110.706	4.055	16.634	1.00	30.34
19462	C	TYR	D	169	-114.474	6.798	15.090	1.00	35.54
19463	O	TYR	D	169	-114.918	7.446	16.033	1.00	36.06
19464	N	ASN	D	170	-115.256	6.347	14.116	1.00	35.04
19465	CA	ASN	D	170	-116.698	6.540	14.183	1.00	34.53
19466	CB	ASN	D	170	-117.302	7.095	12.868	1.00	34.47
19467	CG	ASN	D	170	-116.540	8.269	12.308	1.00	33.96
19468	OD1	ASN	D	170	-115.718	8.100	11.415	1.00	36.18
19469	ND2	ASN	D	170	-116.806	9.466	12.822	1.00	32.81
19470	C	ASN	D	170	-117.309	5.185	14.426	1.00	34.53
19471	O	ASN	D	170	-117.001	4.220	13.719	1.00	34.47
19472	N	GLY	D	171	-118.192	5.099	15.406	1.00	34.24

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**FIGURE 3 NT**

A	B	C	D	E	F	G	H	I	J
19473	CA	GLY	D	171	-118.867	3.844	15.650	1.00	33.95
19474	C	GLY	D	171	-118.020	2.800	16.328	1.00	33.67
19475	O	GLY	D	171	-118.525	1.738	16.662	1.00	33.71
19476	N	ILE	D	172	-116.734	3.074	16.512	1.00	33.28
19477	CA	ILE	D	172	-115.905	2.165	17.299	1.00	33.21
19478	CB	ILE	D	172	-115.021	1.258	16.435	1.00	33.11
19479	CG1	ILE	D	172	-114.167	2.086	15.480	1.00	33.64
19480	CD1	ILE	D	172	-113.038	1.297	14.870	1.00	33.35
19481	CG2	ILE	D	172	-115.857	0.212	15.707	1.00	32.71
19482	C	ILE	D	172	-115.065	2.935	18.305	1.00	32.77
19483	O	ILE	D	172	-114.861	4.138	18.168	1.00	33.08
19484	N	THR	D	173	-114.589	2.246	19.327	1.00	32.04
19485	CA	THR	D	173	-113.801	2.912	20.364	1.00	31.62
19486	CB	THR	D	173	-114.030	2.199	21.703	1.00	31.51
19487	OG1	THR	D	173	-113.962	0.781	21.506	1.00	28.76
19488	CG2	THR	D	173	-115.471	2.414	22.168	1.00	32.28
19489	C	THR	D	173	-112.312	2.926	20.076	1.00	31.35
19490	O	THR	D	173	-111.811	2.095	19.323	1.00	31.72
19491	N	ASP	D	174	-111.598	3.878	20.666	1.00	31.24
19492	CA	ASP	D	174	-110.140	3.835	20.639	1.00	30.80
19493	CB	ASP	D	174	-109.544	5.223	20.855	1.00	30.93
19494	CG	ASP	D	174	-109.758	5.732	22.268	1.00	31.81
19495	OD1	ASP	D	174	-109.046	6.675	22.701	1.00	32.93
19496	OD2	ASP	D	174	-110.608	5.229	23.028	1.00	32.28
19497	C	ASP	D	174	-109.736	2.887	21.786	1.00	30.67
19498	O	ASP	D	174	-110.598	2.265	22.415	1.00	30.57
19499	N	TRP	D	175	-108.449	2.770	22.077	1.00	29.77
19500	CA	TRP	D	175	-108.038	1.874	23.156	1.00	29.76
19501	CB	TRP	D	175	-106.501	1.832	23.324	1.00	28.86
19502	CG	TRP	D	175	-106.079	0.702	24.180	1.00	27.03
19503	CD1	TRP	D	175	-105.674	-0.533	23.762	1.00	26.23
19504	NE1	TRP	D	175	-105.372	-1.326	24.841	1.00	23.65
19505	CE2	TRP	D	175	-105.586	-0.613	25.990	1.00	24.67
19506	CD2	TRP	D	175	-106.044	0.669	25.609	1.00	24.92
19507	CE3	TRP	D	175	-106.352	1.593	26.614	1.00	24.73
19508	CZ3	TRP	D	175	-106.187	1.227	27.944	1.00	23.72
19509	CH2	TRP	D	175	-105.738	-0.057	28.292	1.00	23.52
19510	CZ2	TRP	D	175	-105.436	-0.993	27.331	1.00	24.29
19511	C	TRP	D	175	-108.700	2.130	24.524	1.00	29.64
19512	O	TRP	D	175	-109.288	1.214	25.112	1.00	29.33
19513	N	VAL	D	176	-108.585	3.351	25.047	1.00	29.99
19514	CA	VAL	D	176	-109.146	3.623	26.384	1.00	29.86
19515	CB	VAL	D	176	-108.826	5.014	26.946	1.00	30.01
19516	CG1	VAL	D	176	-108.403	5.962	25.878	1.00	30.79
19517	CG2	VAL	D	176	-107.824	4.921	28.065	1.00	29.46
19518	C	VAL	D	176	-110.646	3.519	26.503	1.00	29.80
19519	O	VAL	D	176	-111.170	3.202	27.582	1.00	30.14
19520	N	TYR	D	177	-111.359	3.828	25.434	1.00	29.56
19521	CA	TYR	D	177	-112.802	3.758	25.518	1.00	29.29
19522	CB	TYR	D	177	-113.455	4.559	24.402	1.00	29.80
19523	CG	TYR	D	177	-113.873	5.942	24.830	1.00	28.67

**REPLACEMENT SHEET**  
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**FIGURE 3 NU**

A	B	C	D	E	F	G	H	I	J
19524	CD1	TYR	D	177	-112.994	6.999	24.757	1.00	28.83
19525	CE1	TYR	D	177	-113.377	8.265	25.148	1.00	28.90
19526	CZ	TYR	D	177	-114.655	8.478	25.621	1.00	28.47
19527	OH	TYR	D	177	-115.028	9.744	25.996	1.00	31.30
19528	CE2	TYR	D	177	-115.546	7.439	25.727	1.00	27.03
19529	CD2	TYR	D	177	-115.153	6.180	25.330	1.00	28.91
19530	C	TYR	D	177	-113.238	2.316	25.508	1.00	29.00
19531	O	TYR	D	177	-114.196	1.947	26.167	1.00	29.66
19532	N	GLU	D	178	-112.509	1.491	24.780	1.00	28.93
19533	CA	GLU	D	178	-112.802	0.073	24.745	1.00	28.98
19534	CB	GLU	D	178	-111.969	-0.641	23.673	1.00	28.58
19535	CG	GLU	D	178	-112.344	-2.112	23.565	1.00	28.40
19536	CD	GLU	D	178	-111.427	-2.912	22.672	1.00	30.67
19537	OE1	GLU	D	178	-111.338	-4.168	22.869	1.00	31.95
19538	OE2	GLU	D	178	-110.795	-2.297	21.779	1.00	30.39
19539	C	GLU	D	178	-112.558	-0.594	26.117	1.00	28.96
19540	O	GLU	D	178	-113.420	-1.282	26.652	1.00	28.96
19541	N	GLU	D	179	-111.377	-0.389	26.675	1.00	28.96
19542	CA	GLU	D	179	-111.020	-1.063	27.910	1.00	29.14
19543	CB	GLU	D	179	-109.493	-1.062	28.101	1.00	29.35
19544	CG	GLU	D	179	-109.017	-1.695	29.415	1.00	30.88
19545	CD	GLU	D	179	-109.394	-3.165	29.534	1.00	31.98
19546	OE1	GLU	D	179	-109.736	-3.805	28.508	1.00	32.59
19547	OE2	GLU	D	179	-109.349	-3.688	30.658	1.00	31.84
19548	C	GLU	D	179	-111.691	-0.511	29.161	1.00	29.26
19549	O	GLU	D	179	-112.152	-1.278	29.976	1.00	28.64
19550	N	GLU	D	180	-111.768	0.813	29.285	1.00	29.60
19551	CA	GLU	D	180	-112.125	1.441	30.556	1.00	30.72
19552	CB	GLU	D	180	-111.065	2.483	30.932	1.00	29.57
19553	CG	GLU	D	180	-109.648	1.973	30.883	1.00	30.51
19554	CD	GLU	D	180	-109.369	0.924	31.956	1.00	30.74
19555	OE1	GLU	D	180	-110.315	0.533	32.702	1.00	28.94
19556	OE2	GLU	D	180	-108.199	0.501	32.043	1.00	29.25
19557	C	GLU	D	180	-113.464	2.135	30.655	1.00	31.90
19558	O	GLU	D	180	-113.957	2.385	31.745	1.00	31.57
19559	N	VAL	D	181	-114.049	2.487	29.526	1.00	34.06
19560	CA	VAL	D	181	-115.288	3.228	29.590	1.00	35.25
19561	CB	VAL	D	181	-115.227	4.463	28.703	1.00	35.11
19562	CG1	VAL	D	181	-116.408	5.358	28.982	1.00	34.70
19563	CG2	VAL	D	181	-113.918	5.199	28.948	1.00	34.10
19564	C	VAL	D	181	-116.439	2.365	29.167	1.00	36.48
19565	O	VAL	D	181	-117.418	2.236	29.888	1.00	37.25
19566	N	PHE	D	182	-116.306	1.752	28.005	1.00	37.81
19567	CA	PHE	D	182	-117.401	0.997	27.435	1.00	38.93
19568	CB	PHE	D	182	-117.570	1.348	25.963	1.00	39.29
19569	CG	PHE	D	182	-118.052	2.736	25.727	1.00	40.33
19570	CD1	PHE	D	182	-118.630	3.458	26.737	1.00	43.17
19571	CE1	PHE	D	182	-119.087	4.740	26.514	1.00	44.23
19572	CZ	PHE	D	182	-118.965	5.303	25.271	1.00	43.23
19573	CE2	PHE	D	182	-118.396	4.594	24.259	1.00	43.26
19574	CD2	PHE	D	182	-117.944	3.315	24.485	1.00	42.22

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**FIGURE 3 NV**

A	B	C	D	E	F	G	H	I	J
19575	C	PHE	D	182	-117.213	-0.497	27.542	1.00	39.66
19576	O	PHE	D	182	-118.157	-1.242	27.312	1.00	40.63
19577	N	SER	D	183	-116.009	-0.957	27.874	1.00	39.53
19578	CA	SER	D	183	-115.806	-2.387	27.949	1.00	38.87
19579	CB	SER	D	183	-116.412	-2.979	29.227	1.00	39.11
19580	OG	SER	D	183	-115.868	-2.364	30.399	1.00	36.26
19581	C	SER	D	183	-116.473	-2.974	26.726	1.00	39.22
19582	O	SER	D	183	-117.203	-3.955	26.813	1.00	39.70
19583	N	ALA	D	184	-116.229	-2.342	25.582	1.00	39.15
19584	CA	ALA	D	184	-116.721	-2.815	24.301	1.00	39.26
19585	CB	ALA	D	184	-118.223	-2.687	24.212	1.00	39.44
19586	C	ALA	D	184	-116.065	-2.015	23.204	1.00	39.26
19587	O	ALA	D	184	-115.707	-0.859	23.403	1.00	39.65
19588	N	TYR	D	185	-115.883	-2.648	22.054	1.00	39.34
19589	CA	TYR	D	185	-115.337	-1.991	20.875	1.00	39.33
19590	CB	TYR	D	185	-114.984	-3.055	19.850	1.00	39.13
19591	CG	TYR	D	185	-114.116	-2.605	18.701	1.00	39.22
19592	CD1	TYR	D	185	-114.103	-3.319	17.518	1.00	38.30
19593	CE1	TYR	D	185	-113.312	-2.945	16.470	1.00	37.37
19594	CZ	TYR	D	185	-112.515	-1.853	16.578	1.00	37.94
19595	OH	TYR	D	185	-111.729	-1.523	15.503	1.00	41.08
19596	CE2	TYR	D	185	-112.496	-1.108	17.733	1.00	37.73
19597	CD2	TYR	D	185	-113.293	-1.492	18.800	1.00	38.47
19598	C	TYR	D	185	-116.402	-1.094	20.269	1.00	39.38
19599	O	TYR	D	185	-116.116	0.007	19.793	1.00	39.52
19600	N	SER	D	186	-117.637	-1.578	20.314	1.00	39.62
19601	CA	SER	D	186	-118.770	-0.920	19.673	1.00	40.05
19602	CB	SER	D	186	-120.014	-1.793	19.756	1.00	40.06
19603	OG	SER	D	186	-121.065	-1.176	19.036	1.00	42.12
19604	C	SER	D	186	-119.124	0.420	20.248	1.00	39.96
19605	O	SER	D	186	-119.230	0.583	21.462	1.00	40.18
19606	N	ALA	D	187	-119.322	1.383	19.361	1.00	40.02
19607	CA	ALA	D	187	-119.751	2.714	19.765	1.00	39.89
19608	CB	ALA	D	187	-118.604	3.695	19.672	1.00	39.01
19609	C	ALA	D	187	-120.923	3.121	18.872	1.00	39.75
19610	O	ALA	D	187	-121.025	4.254	18.422	1.00	39.42
19611	N	LEU	D	188	-121.800	2.156	18.626	1.00	40.42
19612	CA	LEU	D	188	-122.968	2.331	17.777	1.00	41.23
19613	CB	LEU	D	188	-122.858	1.421	16.543	1.00	41.42
19614	CG	LEU	D	188	-122.038	2.006	15.406	1.00	41.93
19615	CD1	LEU	D	188	-122.343	1.318	14.081	1.00	40.35
19616	CD2	LEU	D	188	-122.372	3.476	15.346	1.00	42.22
19617	C	LEU	D	188	-124.226	1.965	18.545	1.00	41.55
19618	O	LEU	D	188	-124.309	0.880	19.133	1.00	41.55
19619	N	TRP	D	189	-125.215	2.846	18.516	1.00	41.91
19620	CA	TRP	D	189	-126.449	2.589	19.246	1.00	43.18
19621	CB	TRP	D	189	-126.504	3.439	20.524	1.00	42.79
19622	CG	TRP	D	189	-125.345	3.180	21.435	1.00	43.11
19623	CD1	TRP	D	189	-125.248	2.200	22.380	1.00	42.61
19624	NE1	TRP	D	189	-124.030	2.272	23.010	1.00	42.77
19625	CE2	TRP	D	189	-123.309	3.302	22.466	1.00	42.51

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**FIGURE 3 NW**

A	B	C	D	E	F	G	H	I	J
19626	CD2	TRP	D	189	-124.106	3.894	21.471	1.00	41.74
19627	CE3	TRP	D	189	-123.589	4.981	20.760	1.00	40.87
19628	CZ3	TRP	D	189	-122.332	5.433	21.058	1.00	40.77
19629	CH2	TRP	D	189	-121.559	4.823	22.049	1.00	41.77
19630	CZ2	TRP	D	189	-122.031	3.755	22.765	1.00	41.90
19631	C	TRP	D	189	-127.721	2.791	18.414	1.00	43.78
19632	O	TRP	D	189	-128.164	3.915	18.201	1.00	43.52
19633	N	TRP	D	190	-128.287	1.677	17.959	1.00	44.99
19634	CA	TRP	D	190	-129.548	1.665	17.226	1.00	46.13
19635	CB	TRP	D	190	-129.875	0.247	16.747	1.00	45.99
19636	CG	TRP	D	190	-129.246	-0.242	15.478	1.00	47.26
19637	CD1	TRP	D	190	-128.410	-1.317	15.343	1.00	47.79
19638	NE1	TRP	D	190	-128.060	-1.484	14.026	1.00	47.56
19639	CE2	TRP	D	190	-128.686	-0.526	13.277	1.00	47.82
19640	CD2	TRP	D	190	-129.448	0.268	14.158	1.00	47.61
19641	CE3	TRP	D	190	-130.185	1.325	13.628	1.00	49.11
19642	CZ3	TRP	D	190	-130.143	1.549	12.265	1.00	49.94
19643	CH2	TRP	D	190	-129.380	0.740	11.421	1.00	49.15
19644	CZ2	TRP	D	190	-128.644	-0.297	11.908	1.00	48.54
19645	C	TRP	D	190	-130.686	2.039	18.164	1.00	46.49
19646	O	TRP	D	190	-130.698	1.639	19.328	1.00	46.91
19647	N	SER	D	191	-131.658	2.783	17.651	1.00	46.78
19648	CA	SER	D	191	-132.861	3.051	18.416	1.00	46.91
19649	CB	SER	D	191	-133.702	4.149	17.760	1.00	46.85
19650	OG	SER	D	191	-134.208	3.721	16.508	1.00	46.27
19651	C	SER	D	191	-133.599	1.713	18.449	1.00	47.19
19652	O	SER	D	191	-133.267	0.796	17.695	1.00	47.05
19653	N	PRO	D	192	-134.572	1.583	19.337	1.00	47.51
19654	CA	PRO	D	192	-135.280	0.313	19.522	1.00	48.10
19655	CB	PRO	D	192	-136.323	0.656	20.582	1.00	48.31
19656	CG	PRO	D	192	-135.743	1.822	21.306	1.00	47.57
19657	CD	PRO	D	192	-135.040	2.627	20.261	1.00	47.53
19658	C	PRO	D	192	-135.948	-0.272	18.268	1.00	49.00
19659	O	PRO	D	192	-136.024	-1.498	18.146	1.00	48.81
19660	N	ASN	D	193	-136.422	0.563	17.350	1.00	49.60
19661	CA	ASN	D	193	-137.098	0.006	16.185	1.00	50.51
19662	CB	ASN	D	193	-138.478	0.636	15.970	1.00	51.04
19663	CG	ASN	D	193	-138.438	1.863	15.094	1.00	53.09
19664	OD1	ASN	D	193	-137.624	1.966	14.176	1.00	55.03
19665	ND2	ASN	D	193	-139.347	2.795	15.355	1.00	57.82
19666	C	ASN	D	193	-136.253	0.027	14.920	1.00	50.46
19667	O	ASN	D	193	-136.710	-0.364	13.843	1.00	50.56
19668	N	GLY	D	194	-135.018	0.495	15.056	1.00	49.91
19669	CA	GLY	D	194	-134.109	0.520	13.931	1.00	49.23
19670	C	GLY	D	194	-134.142	1.811	13.145	1.00	48.71
19671	O	GLY	D	194	-133.450	1.945	12.141	1.00	48.79
19672	N	THR	D	195	-134.929	2.773	13.601	1.00	48.01
19673	CA	THR	D	195	-135.044	4.026	12.874	1.00	47.27
19674	CB	THR	D	195	-136.232	4.839	13.394	1.00	47.08
19675	OG1	THR	D	195	-137.433	4.309	12.830	1.00	48.15
19676	CG2	THR	D	195	-136.196	6.249	12.852	1.00	46.07

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**FIGURE 3 NX**

A	B	C	D	E	F	G	H	I	J
19677	C	THR	D	195	-133.760	4.845	12.909	1.00	46.80
19678	O	THR	D	195	-133.205	5.191	11.863	1.00	46.65
19679	N	PHE	D	196	-133.293	5.163	14.109	1.00	46.15
19680	CA	PHE	D	196	-132.081	5.956	14.240	1.00	45.58
19681	CB	PHE	D	196	-132.231	7.004	15.336	1.00	46.02
19682	CG	PHE	D	196	-133.336	7.998	15.097	1.00	46.92
19683	CD1	PHE	D	196	-133.112	9.140	14.349	1.00	47.46
19684	CE1	PHE	D	196	-134.129	10.070	14.155	1.00	48.60
19685	CZ	PHE	D	196	-135.372	9.861	14.712	1.00	47.47
19686	CE2	PHE	D	196	-135.602	8.732	15.460	1.00	48.00
19687	CD2	PHE	D	196	-134.586	7.807	15.655	1.00	47.89
19688	C	PHE	D	196	-130.871	5.106	14.559	1.00	44.71
19689	O	PHE	D	196	-130.977	4.020	15.132	1.00	44.70
19690	N	LEU	D	197	-129.710	5.607	14.173	1.00	43.96
19691	CA	LEU	D	197	-128.456	4.965	14.515	1.00	42.62
19692	CB	LEU	D	197	-127.728	4.458	13.286	1.00	42.73
19693	CG	LEU	D	197	-126.345	3.877	13.547	1.00	42.17
19694	CD1	LEU	D	197	-125.787	3.269	12.290	1.00	42.13
19695	CD2	LEU	D	197	-126.392	2.829	14.644	1.00	43.28
19696	C	LEU	D	197	-127.661	6.061	15.137	1.00	42.15
19697	O	LEU	D	197	-127.332	7.040	14.475	1.00	41.99
19698	N	ALA	D	198	-127.394	5.933	16.428	1.00	41.38
19699	CA	ALA	D	198	-126.609	6.934	17.113	1.00	40.24
19700	CB	ALA	D	198	-127.203	7.248	18.468	1.00	40.45
19701	C	ALA	D	198	-125.245	6.319	17.251	1.00	39.57
19702	O	ALA	D	198	-125.113	5.104	17.350	1.00	39.36
19703	N	TYR	D	199	-124.221	7.148	17.240	1.00	38.64
19704	CA	TYR	D	199	-122.880	6.618	17.341	1.00	38.12
19705	CB	TYR	D	199	-122.369	6.224	15.951	1.00	38.38
19706	CG	TYR	D	199	-122.292	7.377	14.963	1.00	38.47
19707	CD1	TYR	D	199	-121.131	8.132	14.842	1.00	37.96
19708	CE1	TYR	D	199	-121.046	9.172	13.924	1.00	39.86
19709	CZ	TYR	D	199	-122.140	9.480	13.115	1.00	40.01
19710	OH	TYR	D	199	-122.045	10.525	12.210	1.00	39.99
19711	CE2	TYR	D	199	-123.298	8.736	13.209	1.00	38.52
19712	CD2	TYR	D	199	-123.370	7.689	14.130	1.00	39.04
19713	C	TYR	D	199	-121.994	7.667	17.964	1.00	37.29
19714	O	TYR	D	199	-122.393	8.820	18.089	1.00	37.12
19715	N	ALA	D	200	-120.800	7.262	18.374	1.00	36.49
19716	CA	ALA	D	200	-119.840	8.204	18.920	1.00	35.72
19717	CB	ALA	D	200	-119.360	7.752	20.284	1.00	35.51
19718	C	ALA	D	200	-118.675	8.257	17.955	1.00	35.40
19719	O	ALA	D	200	-118.445	7.309	17.211	1.00	35.07
19720	N	GLN	D	201	-117.948	9.365	17.967	1.00	34.67
19721	CA	GLN	D	201	-116.767	9.482	17.150	1.00	34.64
19722	CB	GLN	D	201	-116.972	10.478	16.018	1.00	34.58
19723	CG	GLN	D	201	-115.677	11.025	15.456	1.00	34.47
19724	CD	GLN	D	201	-115.919	12.212	14.546	1.00	35.82
19725	OE1	GLN	D	201	-115.841	13.357	14.987	1.00	36.79
19726	NE2	GLN	D	201	-116.238	11.944	13.287	1.00	32.06
19727	C	GLN	D	201	-115.637	9.957	18.033	1.00	34.24



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**FIGURE 3 NY**

A	B	C	D	E	F	G	H	I	J
19728	O	GLN	D	201	-115.740	10.998	18.670	1.00	34.35
19729	N	PHE	D	202	-114.553	9.202	18.070	1.00	33.60
19730	CA	PHE	D	202	-113.443	9.606	18.916	1.00	33.94
19731	CB	PHE	D	202	-113.003	8.450	19.835	1.00	33.79
19732	CG	PHE	D	202	-114.159	7.783	20.547	1.00	33.26
19733	CD1	PHE	D	202	-114.561	8.211	21.806	1.00	33.46
19734	CE1	PHE	D	202	-115.625	7.630	22.444	1.00	32.35
19735	CZ	PHE	D	202	-116.325	6.618	21.833	1.00	33.18
19736	CE2	PHE	D	202	-115.952	6.193	20.566	1.00	33.55
19737	CD2	PHE	D	202	-114.873	6.776	19.934	1.00	32.40
19738	C	PHE	D	202	-112.299	10.170	18.095	1.00	33.79
19739	O	PHE	D	202	-112.011	9.726	16.993	1.00	32.93
19740	N	ASN	D	203	-111.673	11.186	18.656	1.00	34.99
19741	CA	ASN	D	203	-110.561	11.860	18.023	1.00	35.89
19742	CB	ASN	D	203	-110.922	13.334	17.871	1.00	36.02
19743	CG	ASN	D	203	-109.938	14.088	17.025	1.00	37.77
19744	OD1	ASN	D	203	-108.770	13.721	16.933	1.00	38.31
19745	ND2	ASN	D	203	-110.403	15.162	16.400	1.00	43.95
19746	C	ASN	D	203	-109.300	11.704	18.879	1.00	36.16
19747	O	ASN	D	203	-109.211	12.277	19.966	1.00	36.27
19748	N	ASP	D	204	-108.327	10.944	18.382	1.00	36.54
19749	CA	ASP	D	204	-107.086	10.710	19.106	1.00	37.36
19750	CB	ASP	D	204	-106.746	9.215	19.127	1.00	37.61
19751	CG	ASP	D	204	-107.684	8.421	20.006	1.00	37.75
19752	OD1	ASP	D	204	-108.911	8.614	19.878	1.00	38.80
19753	OD2	ASP	D	204	-107.293	7.582	20.842	1.00	36.60
19754	C	ASP	D	204	-105.903	11.467	18.532	1.00	37.87
19755	O	ASP	D	204	-104.751	11.155	18.835	1.00	38.21
19756	N	THR	D	205	-106.164	12.464	17.707	1.00	38.14
19757	CA	THR	D	205	-105.053	13.195	17.097	1.00	38.26
19758	CB	THR	D	205	-105.506	14.549	16.520	1.00	38.05
19759	OG1	THR	D	205	-106.361	14.327	15.393	1.00	39.01
19760	CG2	THR	D	205	-104.314	15.265	15.918	1.00	37.32
19761	C	THR	D	205	-103.852	13.418	18.019	1.00	38.03
19762	O	THR	D	205	-102.714	13.100	17.660	1.00	37.78
19763	N	GLU	D	206	-104.087	13.997	19.188	1.00	37.62
19764	CA	GLU	D	206	-102.953	14.292	20.059	1.00	37.50
19765	CB	GLU	D	206	-103.048	15.711	20.608	1.00	38.21
19766	CG	GLU	D	206	-102.484	16.761	19.670	1.00	41.63
19767	CD	GLU	D	206	-102.929	18.150	20.052	1.00	45.92
19768	OE1	GLU	D	206	-102.040	18.998	20.322	1.00	48.17
19769	OE2	GLU	D	206	-104.166	18.381	20.093	1.00	46.94
19770	C	GLU	D	206	-102.711	13.313	21.208	1.00	36.08
19771	O	GLU	D	206	-101.979	13.617	22.142	1.00	35.60
19772	N	VAL	D	207	-103.313	12.142	21.177	1.00	34.78
19773	CA	VAL	D	207	-102.956	11.236	22.252	1.00	34.13
19774	CB	VAL	D	207	-104.118	10.309	22.686	1.00	34.28
19775	CG1	VAL	D	207	-103.765	8.857	22.537	1.00	34.90
19776	CG2	VAL	D	207	-103.406	10.705	21.988	1.00	34.08
19777	C	VAL	D	207	-101.638	10.519	21.923	1.00	32.63
19778	O	VAL	D	207	-101.434	10.002	20.822	1.00	31.99

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**FIGURE 3 NZ**

A	B	C	D	E	F	G	H	I	J
19779	N	PRO	D	208	-100.712	10.557	22.867	1.00	31.86
19780	CA	PRO	D	208	-99.409	9.936	22.650	1.00	31.33
19781	CB	PRO	D	208	-98.680	10.182	23.966	1.00	31.40
19782	CG	PRO	D	208	-99.388	11.391	24.576	1.00	31.21
19783	CD	PRO	D	208	-100.832	11.187	24.199	1.00	31.62
19784	C	PRO	D	208	-99.597	8.456	22.371	1.00	31.19
19785	O	PRO	D	208	-100.636	7.883	22.720	1.00	31.26
19786	N	LEU	D	209	-98.629	7.847	21.703	1.00	30.84
19787	CA	LEU	D	209	-98.740	6.426	21.395	1.00	30.98
19788	CB	LEU	D	209	-98.521	6.159	19.891	1.00	31.17
19789	CG	LEU	D	209	-99.343	6.966	18.873	1.00	31.32
19790	CD1	LEU	D	209	-100.116	6.064	17.943	1.00	32.28
19791	CD2	LEU	D	209	-98.445	7.864	18.085	1.00	33.81
19792	C	LEU	D	209	-97.782	5.581	22.239	1.00	30.34
19793	O	LEU	D	209	-96.652	5.996	22.519	1.00	31.03
19794	N	ILE	D	210	-98.248	4.420	22.683	1.00	29.33
19795	CA	ILE	D	210	-97.363	3.504	23.391	1.00	28.55
19796	CB	ILE	D	210	-98.128	2.609	24.366	1.00	27.87
19797	CG1	ILE	D	210	-97.194	1.600	25.046	1.00	26.81
19798	CD1	ILE	D	210	-95.991	2.195	25.727	1.00	25.03
19799	CG2	ILE	D	210	-99.226	1.859	23.631	1.00	28.10
19800	C	ILE	D	210	-96.771	2.678	22.291	1.00	28.18
19801	O	ILE	D	210	-97.500	2.229	21.427	1.00	27.53
19802	N	GLU	D	211	-95.449	2.532	22.289	1.00	28.37
19803	CA	GLU	D	211	-94.792	1.697	21.298	1.00	28.97
19804	CB	GLU	D	211	-93.779	2.484	20.445	1.00	29.20
19805	CG	GLU	D	211	-94.073	3.960	20.253	1.00	31.46
19806	CD	GLU	D	211	-93.308	4.564	19.080	1.00	34.06
19807	OE1	GLU	D	211	-93.946	5.132	18.183	1.00	37.28
19808	OE2	GLU	D	211	-92.070	4.492	19.045	1.00	35.21
19809	C	GLU	D	211	-94.058	0.559	21.997	1.00	28.84
19810	O	GLU	D	211	-93.430	0.752	23.040	1.00	28.04
19811	N	TYR	D	212	-94.121	-0.620	21.395	1.00	28.90
19812	CA	TYR	D	212	-93.392	-1.767	21.893	1.00	29.35
19813	CB	TYR	D	212	-94.152	-2.481	23.018	1.00	29.57
19814	CG	TYR	D	212	-95.564	-2.794	22.675	1.00	28.88
19815	CD1	TYR	D	212	-95.896	-3.972	22.027	1.00	29.65
19816	CE1	TYR	D	212	-97.200	-4.258	21.706	1.00	28.84
19817	CZ	TYR	D	212	-98.188	-3.353	22.015	1.00	28.00
19818	OH	TYR	D	212	-99.501	-3.630	21.698	1.00	28.52
19819	CE2	TYR	D	212	-97.879	-2.177	22.645	1.00	28.71
19820	CD2	TYR	D	212	-96.572	-1.900	22.971	1.00	29.20
19821	C	TYR	D	212	-93.124	-2.709	20.757	1.00	29.59
19822	O	TYR	D	212	-93.786	-2.661	19.707	1.00	30.24
19823	N	SER	D	213	-92.138	-3.567	20.961	1.00	29.61
19824	CA	SER	D	213	-91.752	-4.527	19.948	1.00	29.47
19825	CB	SER	D	213	-90.337	-5.027	20.203	1.00	28.66
19826	OG	SER	D	213	-89.418	-3.945	20.118	1.00	29.20
19827	C	SER	D	213	-92.709	-5.699	19.880	1.00	29.72
19828	O	SER	D	213	-93.221	-6.148	20.900	1.00	30.07
19829	N	PHE	D	214	-92.977	-6.155	18.661	1.00	29.60

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**FIGURE 3 OA**

A	B	C	D	E	F	G	H	I	J
19830	CA	PHE	D	214	-93.727	-7.379	18.445	1.00	30.26
19831	CB	PHE	D	214	-95.054	-7.141	17.751	1.00	30.16
19832	CG	PHE	D	214	-95.995	-8.303	17.869	1.00	31.47
19833	CD1	PHE	D	214	-96.002	-9.301	16.913	1.00	30.09
19834	CE1	PHE	D	214	-96.836	-10.358	17.020	1.00	29.10
19835	CZ	PHE	D	214	-97.692	-10.464	18.089	1.00	29.87
19836	CE2	PHE	D	214	-97.703	-9.494	19.051	1.00	31.23
19837	CD2	PHE	D	214	-96.854	-8.414	18.949	1.00	31.10
19838	C	PHE	D	214	-92.831	-8.263	17.597	1.00	30.20
19839	O	PHE	D	214	-92.446	-7.891	16.490	1.00	30.05
19840	N	TYR	D	215	-92.509	-9.437	18.121	1.00	30.18
19841	CA	TYR	D	215	-91.502	-10.275	17.501	1.00	30.12
19842	CB	TYR	D	215	-90.724	-11.052	18.578	1.00	29.28
19843	CG	TYR	D	215	-90.102	-10.062	19.523	1.00	27.33
19844	CD1	TYR	D	215	-90.713	-9.748	20.732	1.00	23.82
19845	CE1	TYR	D	215	-90.170	-8.828	21.567	1.00	22.15
19846	CZ	TYR	D	215	-89.009	-8.176	21.207	1.00	22.23
19847	OH	TYR	D	215	-88.487	-7.237	22.038	1.00	21.18
19848	CE2	TYR	D	215	-88.391	-8.440	20.010	1.00	22.82
19849	CD2	TYR	D	215	-88.950	-9.378	19.170	1.00	25.51
19850	C	TYR	D	215	-92.036	-11.136	16.387	1.00	31.07
19851	O	TYR	D	215	-91.324	-11.411	15.414	1.00	31.32
19852	N	SER	D	216	-93.290	-11.542	16.534	1.00	32.24
19853	CA	SER	D	216	-93.977	-12.331	15.523	1.00	33.25
19854	CB	SER	D	216	-93.906	-11.654	14.144	1.00	33.12
19855	OG	SER	D	216	-94.802	-12.287	13.238	1.00	32.97
19856	C	SER	D	216	-93.357	-13.704	15.449	1.00	33.82
19857	O	SER	D	216	-92.623	-14.108	16.353	1.00	33.58
19858	N	ASP	D	217	-93.659	-14.408	14.362	1.00	34.88
19859	CA	ASP	D	217	-93.144	-15.744	14.128	1.00	35.87
19860	CB	ASP	D	217	-93.836	-16.411	12.919	1.00	36.72
19861	CG	ASP	D	217	-95.301	-16.822	13.222	1.00	40.47
19862	OD1	ASP	D	217	-95.515	-17.742	14.060	1.00	42.47
19863	OD2	ASP	D	217	-96.298	-16.280	12.670	1.00	42.44
19864	C	ASP	D	217	-91.658	-15.623	13.886	1.00	36.06
19865	O	ASP	D	217	-91.157	-14.561	13.516	1.00	36.00
19866	N	GLU	D	218	-90.956	-16.722	14.104	1.00	36.36
19867	CA	GLU	D	218	-89.523	-16.775	13.912	1.00	36.81
19868	CB	GLU	D	218	-89.059	-18.214	14.114	1.00	37.14
19869	CG	GLU	D	218	-87.604	-18.453	13.807	1.00	40.56
19870	CD	GLU	D	218	-87.200	-19.893	14.038	1.00	44.21
19871	OE1	GLU	D	218	-86.058	-20.230	13.649	1.00	45.99
19872	OE2	GLU	D	218	-88.015	-20.676	14.601	1.00	43.55
19873	C	GLU	D	218	-89.096	-16.244	12.539	1.00	36.39
19874	O	GLU	D	218	-88.002	-15.715	12.402	1.00	36.03
19875	N	SER	D	219	-89.963	-16.362	11.533	1.00	36.00
19876	CA	SER	D	219	-89.633	-15.898	10.179	1.00	35.98
19877	CB	SER	D	219	-90.638	-16.439	9.163	1.00	36.02
19878	OG	SER	D	219	-91.961	-16.148	9.556	1.00	36.24
19879	C	SER	D	219	-89.514	-14.373	10.000	1.00	36.12
19880	O	SER	D	219	-88.973	-13.910	8.995	1.00	35.86

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**FIGURE 3 OB**

A	B	C	D	E	F	G	H	I	J
19881	N	LEU	D	220	-90.024	-13.588	10.949	1.00	35.55
19882	CA	LEU	D	220	-89.922	-12.145	10.820	1.00	35.01
19883	CB	LEU	D	220	-90.835	-11.446	11.811	1.00	34.74
19884	CG	LEU	D	220	-91.625	-10.236	11.315	1.00	35.21
19885	CD1	LEU	D	220	-91.666	-9.135	12.401	1.00	29.79
19886	CD2	LEU	D	220	-91.099	-9.711	9.972	1.00	32.56
19887	C	LEU	D	220	-88.483	-11.772	11.113	1.00	35.13
19888	O	LEU	D	220	-88.003	-12.017	12.217	1.00	35.41
19889	N	GLN	D	221	-87.804	-11.173	10.142	1.00	34.37
19890	CA	GLN	D	221	-86.396	-10.850	10.297	1.00	34.60
19891	CB	GLN	D	221	-85.708	-10.670	8.931	1.00	34.28
19892	CG	GLN	D	221	-84.268	-10.179	9.005	1.00	36.05
19893	CD	GLN	D	221	-83.468	-10.432	7.711	1.00	38.63
19894	OE1	GLN	D	221	-82.371	-10.994	7.755	1.00	38.23
19895	NE2	GLN	D	221	-84.017	-10.010	6.569	1.00	38.62
19896	C	GLN	D	221	-86.218	-9.625	11.180	1.00	34.16
19897	O	GLN	D	221	-85.342	-9.575	12.025	1.00	33.56
19898	N	TYR	D	222	-87.061	-8.631	10.983	1.00	34.08
19899	CA	TYR	D	222	-86.981	-7.448	11.808	1.00	33.86
19900	CB	TYR	D	222	-86.860	-6.195	10.945	1.00	33.19
19901	CG	TYR	D	222	-85.502	-6.002	10.315	1.00	32.55
19902	CD1	TYR	D	222	-84.581	-5.148	10.884	1.00	30.98
19903	CE1	TYR	D	222	-83.343	-4.958	10.319	1.00	29.73
19904	CZ	TYR	D	222	-83.007	-5.614	9.168	1.00	30.36
19905	OH	TYR	D	222	-81.754	-5.386	8.628	1.00	27.90
19906	CE2	TYR	D	222	-83.909	-6.472	8.573	1.00	29.02
19907	CD2	TYR	D	222	-85.146	-6.659	9.141	1.00	30.28
19908	C	TYR	D	222	-88.234	-7.358	12.662	1.00	34.09
19909	O	TYR	D	222	-89.335	-7.502	12.160	1.00	34.31
19910	N	PRO	D	223	-88.065	-7.112	13.952	1.00	34.14
19911	CA	PRO	D	223	-89.207	-6.944	14.847	1.00	34.27
19912	CB	PRO	D	223	-88.550	-6.573	16.174	1.00	33.88
19913	CG	PRO	D	223	-87.203	-7.171	16.080	1.00	34.68
19914	CD	PRO	D	223	-86.786	-6.987	14.659	1.00	33.87
19915	C	PRO	D	223	-90.065	-5.797	14.381	1.00	34.22
19916	O	PRO	D	223	-89.557	-4.819	13.859	1.00	34.41
19917	N	LYS	D	224	-91.359	-5.918	14.617	1.00	34.36
19918	CA	LYS	D	224	-92.327	-4.910	14.246	1.00	34.39
19919	CB	LYS	D	224	-93.581	-5.644	13.787	1.00	34.71
19920	CG	LYS	D	224	-94.691	-4.779	13.283	1.00	37.46
19921	CD	LYS	D	224	-95.775	-5.674	12.694	1.00	41.70
19922	CE	LYS	D	224	-96.832	-6.090	13.725	1.00	43.67
19923	NZ	LYS	D	224	-98.161	-5.463	13.412	1.00	44.44
19924	C	LYS	D	224	-92.630	-4.016	15.452	1.00	33.72
19925	O	LYS	D	224	-92.751	-4.491	16.566	1.00	34.71
19926	N	THR	D	225	-92.731	-2.719	15.243	1.00	32.82
19927	CA	THR	D	225	-93.053	-1.816	16.325	1.00	31.33
19928	CB	THR	D	225	-92.217	-0.546	16.220	1.00	31.33
19929	OG1	THR	D	225	-90.834	-0.888	16.378	1.00	28.29
19930	CG2	THR	D	225	-92.513	0.401	17.408	1.00	29.29
19931	C	THR	D	225	-94.539	-1.479	16.295	1.00	31.74

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**FIGURE 3 OC**

A	B	C	D	E	F	G	H	I	J
19932	O	THR	D	225	-95.032	-0.894	15.335	1.00	32.38
19933	N	VAL	D	226	-95.250	-1.885	17.337	1.00	31.14
19934	CA	VAL	D	226	-96.664	-1.612	17.453	1.00	30.16
19935	CB	VAL	D	226	-97.355	-2.626	18.379	1.00	30.16
19936	CG1	VAL	D	226	-98.778	-2.192	18.694	1.00	29.53
19937	CG2	VAL	D	226	-97.313	-4.040	17.779	1.00	28.64
19938	C	VAL	D	226	-96.749	-0.249	18.085	1.00	30.36
19939	O	VAL	D	226	-96.000	0.067	19.033	1.00	30.18
19940	N	ARG	D	227	-97.663	0.558	17.566	1.00	29.90
19941	CA	ARG	D	227	-97.847	1.911	18.031	1.00	29.68
19942	CB	ARG	D	227	-97.330	2.892	16.965	1.00	30.45
19943	CG	ARG	D	227	-95.833	2.741	16.607	1.00	31.29
19944	CD	ARG	D	227	-95.266	3.880	15.753	1.00	33.74
19945	NE	ARG	D	227	-93.794	3.932	15.704	1.00	38.15
19946	CZ	ARG	D	227	-93.013	3.212	14.876	1.00	37.63
19947	NH1	ARG	D	227	-93.548	2.339	14.025	1.00	39.45
19948	NH2	ARG	D	227	-91.696	3.363	14.902	1.00	34.26
19949	C	ARG	D	227	-99.336	2.089	18.265	1.00	29.49
19950	O	ARG	D	227	-100.131	1.899	17.356	1.00	29.57
19951	N	VAL	D	228	-99.740	2.411	19.491	1.00	29.10
19952	CA	VAL	D	228	-101.166	2.580	19.753	1.00	28.12
19953	CB	VAL	D	228	-101.834	1.313	20.377	1.00	28.67
19954	CG1	VAL	D	228	-102.402	1.590	21.760	1.00	29.84
19955	CG2	VAL	D	228	-100.896	0.113	20.397	1.00	27.52
19956	C	VAL	D	228	-101.419	3.833	20.581	1.00	27.61
19957	O	VAL	D	228	-100.664	4.139	21.501	1.00	27.98
19958	N	PRO	D	229	-102.451	4.596	20.223	1.00	26.71
19959	CA	PRO	D	229	-102.738	5.827	20.950	1.00	26.21
19960	CB	PRO	D	229	-103.858	6.482	20.128	1.00	26.21
19961	CG	PRO	D	229	-103.905	5.721	18.827	1.00	26.12
19962	CD	PRO	D	229	-103.407	4.357	19.133	1.00	26.51
19963	C	PRO	D	229	-103.235	5.366	22.297	1.00	25.46
19964	O	PRO	D	229	-104.206	4.619	22.355	1.00	25.44
19965	N	TYR	D	230	-102.563	5.802	23.353	1.00	24.72
19966	CA	TYR	D	230	-102.862	5.379	24.705	1.00	23.40
19967	CB	TYR	D	230	-101.962	4.177	25.017	1.00	23.36
19968	CG	TYR	D	230	-102.160	3.472	26.344	1.00	22.61
19969	CD1	TYR	D	230	-102.622	2.147	26.394	1.00	22.13
19970	CE1	TYR	D	230	-102.777	1.497	27.585	1.00	20.23
19971	CZ	TYR	D	230	-102.459	2.164	28.763	1.00	20.96
19972	OH	TYR	D	230	-102.615	1.556	29.985	1.00	19.64
19973	CE2	TYR	D	230	-101.996	3.468	28.732	1.00	19.94
19974	CD2	TYR	D	230	-101.847	4.104	27.537	1.00	19.59
19975	C	TYR	D	230	-102.548	6.559	25.612	1.00	23.32
19976	O	TYR	D	230	-101.403	7.006	25.713	1.00	23.98
19977	N	PRO	D	231	-103.554	7.097	26.272	1.00	23.36
19978	CA	PRO	D	231	-103.316	8.211	27.185	1.00	23.64
19979	CB	PRO	D	231	-104.667	8.905	27.264	1.00	22.98
19980	CG	PRO	D	231	-105.628	8.016	26.512	1.00	24.01
19981	CD	PRO	D	231	-104.969	6.708	26.228	1.00	23.69
19982	C	PRO	D	231	-102.936	7.662	28.562	1.00	24.12

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**FIGURE 3 OD**

A	B	C	D	E	F	G	H	I	J
19983	O	PRO	D	231	-103.731	6.996	29.240	1.00	24.04
19984	N	LYS	D	232	-101.693	7.905	28.944	1.00	24.54
19985	CA	LYS	D	232	-101.222	7.566	30.262	1.00	24.86
19986	CB	LYS	D	232	-99.696	7.447	30.252	1.00	24.86
19987	CG	LYS	D	232	-99.215	6.189	29.506	1.00	24.09
19988	CD	LYS	D	232	-97.715	6.177	29.268	1.00	23.88
19989	CE	LYS	D	232	-97.232	4.834	28.657	1.00	23.84
19990	NZ	LYS	D	232	-97.246	3.661	29.615	1.00	22.47
19991	C	LYS	D	232	-101.735	8.666	31.182	1.00	25.31
19992	O	LYS	D	232	-102.104	9.744	30.727	1.00	25.47
19993	N	ALA	D	233	-101.791	8.377	32.470	1.00	26.01
19994	CA	ALA	D	233	-102.283	9.325	33.462	1.00	26.13
19995	CB	ALA	D	233	-101.862	8.877	34.834	1.00	25.92
19996	C	ALA	D	233	-101.795	10.740	33.220	1.00	26.28
19997	O	ALA	D	233	-100.604	10.985	33.215	1.00	25.80
19998	N	GLY	D	234	-102.724	11.667	33.021	1.00	26.56
19999	CA	GLY	D	234	-102.359	13.054	32.846	1.00	27.38
20000	C	GLY	D	234	-102.013	13.518	31.438	1.00	28.02
20001	O	GLY	D	234	-101.698	14.693	31.241	1.00	28.33
20002	N	ALA	D	235	-102.064	12.621	30.465	1.00	28.27
20003	CA	ALA	D	235	-101.693	12.967	29.096	1.00	29.15
20004	CB	ALA	D	235	-101.160	11.740	28.350	1.00	28.71
20005	C	ALA	D	235	-102.931	13.463	28.422	1.00	30.05
20006	O	ALA	D	235	-104.018	13.432	29.016	1.00	30.41
20007	N	VAL	D	236	-102.806	13.893	27.169	1.00	30.38
20008	CA	VAL	D	236	-104.001	14.369	26.517	1.00	30.22
20009	CB	VAL	D	236	-103.722	15.366	25.346	1.00	30.88
20010	CG1	VAL	D	236	-103.802	14.675	24.009	1.00	31.62
20011	CG2	VAL	D	236	-102.401	16.090	25.552	1.00	30.21
20012	C	VAL	D	236	-104.842	13.177	26.125	1.00	30.03
20013	O	VAL	D	236	-104.346	12.157	25.637	1.00	30.27
20014	N	ASN	D	237	-106.134	13.324	26.349	1.00	30.09
20015	CA	ASN	D	237	-107.107	12.274	26.141	1.00	30.11
20016	CB	ASN	D	237	-108.166	12.387	27.241	1.00	29.80
20017	CG	ASN	D	237	-107.940	11.424	28.392	1.00	30.52
20018	OD1	ASN	D	237	-106.952	10.678	28.422	1.00	30.25
20019	ND2	ASN	D	237	-108.872	11.429	29.352	1.00	30.08
20020	C	ASN	D	237	-107.796	12.434	24.797	1.00	30.85
20021	O	ASN	D	237	-107.814	13.515	24.235	1.00	31.48
20022	N	PRO	D	238	-108.363	11.361	24.279	1.00	30.78
20023	CA	PRO	D	238	-109.156	11.441	23.069	1.00	31.29
20024	CB	PRO	D	238	-109.615	9.993	22.877	1.00	31.14
20025	CG	PRO	D	238	-109.534	9.419	24.278	1.00	31.07
20026	CD	PRO	D	238	-108.274	9.985	24.799	1.00	31.04
20027	C	PRO	D	238	-110.369	12.330	23.361	1.00	32.20
20028	O	PRO	D	238	-110.814	12.427	24.522	1.00	32.07
20029	N	THR	D	239	-110.874	13.017	22.344	1.00	32.48
20030	CA	THR	D	239	-112.070	13.809	22.548	1.00	32.85
20031	CB	THR	D	239	-111.966	15.207	21.951	1.00	32.83
20032	CG1	THR	D	239	-111.503	15.123	20.597	1.00	33.97
20033	CG2	THR	D	239	-110.909	16.031	22.676	1.00	31.34

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**FIGURE 3 OE**

A	B	C	D	E	F	G	H	I	J
20034	C	THR	D	239	-113.163	13.024	21.865	1.00	33.35
20035	O	THR	D	239	-112.897	12.187	21.029	1.00	34.01
20036	N	VAL	D	240	-114.395	13.269	22.294	1.00	33.86
20037	CA	VAL	D	240	-115.500	12.513	21.748	1.00	34.02
20038	CB	VAL	D	240	-116.100	11.566	22.826	1.00	33.91
20039	CG1	VAL	D	240	-117.224	10.719	22.255	1.00	32.87
20040	CG2	VAL	D	240	-116.573	12.356	24.030	1.00	32.74
20041	C	VAL	D	240	-116.582	13.443	21.231	1.00	34.58
20042	O	VAL	D	240	-116.815	14.520	21.780	1.00	34.31
20043	N	LYS	D	241	-117.222	13.025	20.154	1.00	35.43
20044	CA	LYS	D	241	-118.380	13.733	19.648	1.00	37.05
20045	CB	LYS	D	241	-118.088	14.372	18.300	1.00	36.97
20046	CG	LYS	D	241	-117.967	15.870	18.361	1.00	38.64
20047	CD	LYS	D	241	-116.536	16.337	18.583	1.00	42.01
20048	CE	LYS	D	241	-116.249	17.594	17.744	1.00	42.56
20049	NZ	LYS	D	241	-116.606	17.384	16.306	1.00	41.46
20050	C	LYS	D	241	-119.506	12.727	19.526	1.00	37.27
20051	O	LYS	D	241	-119.251	11.540	19.347	1.00	37.51
20052	N	PHE	D	242	-120.746	13.194	19.631	1.00	38.06
20053	CA	PHE	D	242	-121.895	12.300	19.539	1.00	38.80
20054	CB	PHE	D	242	-122.654	12.258	20.868	1.00	38.44
20055	CG	PHE	D	242	-123.665	11.153	20.943	1.00	37.10
20056	CD1	PHE	D	242	-123.261	9.842	21.131	1.00	36.86
20057	CE1	PHE	D	242	-124.193	8.804	21.184	1.00	35.84
20058	CZ	PHE	D	242	-125.535	9.087	21.051	1.00	35.22
20059	CE2	PHE	D	242	-125.947	10.399	20.856	1.00	35.00
20060	CD2	PHE	D	242	-125.015	11.418	20.796	1.00	35.38
20061	C	PHE	D	242	-122.837	12.664	18.388	1.00	39.90
20062	O	PHE	D	242	-123.058	13.831	18.097	1.00	40.25
20063	N	PHE	D	243	-123.406	11.660	17.738	1.00	41.32
20064	CA	PHE	D	243	-124.248	11.917	16.582	1.00	43.02
20065	CB	PHE	D	243	-123.416	11.794	15.279	1.00	43.24
20066	CG	PHE	D	243	-122.235	12.736	15.200	1.00	44.45
20067	CD1	PHE	D	243	-120.989	12.360	15.705	1.00	45.86
20068	CE1	PHE	D	243	-119.893	13.226	15.635	1.00	45.64
20069	CZ	PHE	D	243	-120.037	14.474	15.050	1.00	46.41
20070	CE2	PHE	D	243	-121.281	14.857	14.541	1.00	44.75
20071	CD2	PHE	D	243	-122.364	13.985	14.616	1.00	43.97
20072	C	PHE	D	243	-125.411	10.938	16.490	1.00	43.55
20073	O	PHE	D	243	-125.351	9.839	17.032	1.00	43.91
20074	N	VAL	D	244	-126.477	11.341	15.810	1.00	44.19
20075	CA	VAL	D	244	-127.517	10.374	15.447	1.00	44.95
20076	CB	VAL	D	244	-128.725	10.343	16.413	1.00	44.90
20077	CG1	VAL	D	244	-128.985	11.706	17.015	1.00	45.24
20078	CG2	VAL	D	244	-129.953	9.803	15.706	1.00	44.23
20079	C	VAL	D	244	-127.951	10.583	13.995	1.00	45.46
20080	O	VAL	D	244	-128.018	11.711	13.503	1.00	45.39
20081	N	VAL	D	245	-128.199	9.490	13.294	1.00	46.23
20082	CA	VAL	D	245	-128.586	9.601	11.906	1.00	47.38
20083	CB	VAL	D	245	-127.457	9.099	10.966	1.00	47.64
20084	CG1	VAL	D	245	-127.261	7.594	11.094	1.00	47.24

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**FIGURE 3 OF**

A	B	C	D	E	F	G	H	I	J
20085	CG2	VAL	D	245	-127.733	9.503	9.517	1.00	47.82
20086	C	VAL	D	245	-129.876	8.834	11.671	1.00	48.10
20087	O	VAL	D	245	-130.081	7.766	12.252	1.00	47.57
20088	N	ASN	D	246	-130.760	9.401	10.849	1.00	49.41
20089	CA	ASN	D	246	-131.999	8.712	10.484	1.00	50.73
20090	CB	ASN	D	246	-133.079	9.699	10.034	1.00	50.45
20091	CG	ASN	D	246	-134.456	9.055	9.936	1.00	50.52
20092	OD1	ASN	D	246	-134.581	7.842	9.740	1.00	50.04
20093	ND2	ASN	D	246	-135.498	9.867	10.084	1.00	50.52
20094	C	ASN	D	246	-131.702	7.738	9.368	1.00	51.63
20095	O	ASN	D	246	-131.362	8.147	8.259	1.00	52.34
20096	N	THR	D	247	-131.831	6.450	9.649	1.00	52.85
20097	CA	THR	D	247	-131.547	5.447	8.639	1.00	54.16
20098	CB	THR	D	247	-131.096	4.137	9.282	1.00	54.08
20099	OG1	THR	D	247	-132.190	3.562	10.006	1.00	53.60
20100	CG2	THR	D	247	-130.025	4.401	10.339	1.00	54.01
20101	C	THR	D	247	-132.746	5.168	7.751	1.00	55.42
20102	O	THR	D	247	-132.698	4.272	6.901	1.00	55.55
20103	N	ASP	D	248	-133.831	5.903	7.956	1.00	56.81
20104	CA	ASP	D	248	-135.011	5.697	7.126	1.00	58.51
20105	CB	ASP	D	248	-136.302	5.904	7.923	1.00	58.44
20106	CG	ASP	D	248	-136.734	4.656	8.675	1.00	59.37
20107	OD1	ASP	D	248	-136.255	3.544	8.332	1.00	58.59
20108	OD2	ASP	D	248	-137.555	4.699	9.625	1.00	60.59
20109	C	ASP	D	248	-134.962	6.649	5.944	1.00	59.26
20110	O	ASP	D	248	-135.639	6.444	4.941	1.00	59.45
20111	N	SER	D	249	-134.135	7.682	6.062	1.00	60.19
20112	CA	SER	D	249	-134.041	8.689	5.017	1.00	60.95
20113	CB	SER	D	249	-134.411	10.050	5.586	1.00	60.84
20114	OG	SER	D	249	-133.802	10.221	6.844	1.00	61.32
20115	C	SER	D	249	-132.661	8.750	4.371	1.00	61.45
20116	O	SER	D	249	-132.178	9.829	4.013	1.00	61.57
20117	N	LEU	D	250	-132.020	7.597	4.233	1.00	61.85
20118	CA	LEU	D	250	-130.735	7.550	3.555	1.00	62.45
20119	CB	LEU	D	250	-129.936	6.313	3.962	1.00	62.30
20120	CG	LEU	D	250	-129.092	6.365	5.241	1.00	61.93
20121	CD1	LEU	D	250	-129.486	5.252	6.201	1.00	60.56
20122	CD2	LEU	D	250	-129.126	7.752	5.897	1.00	60.62
20123	C	LEU	D	250	-130.960	7.534	2.047	1.00	62.96
20124	O	LEU	D	250	-131.732	6.717	1.537	1.00	62.64
20125	N	SER	D	251	-130.281	8.429	1.338	1.00	63.68
20126	CA	SER	D	251	-130.415	8.513	-0.110	1.00	64.43
20127	CB	SER	D	251	-130.642	9.960	-0.538	1.00	64.42
20128	OG	SER	D	251	-131.250	10.721	0.496	1.00	65.65
20129	C	SER	D	251	-129.157	7.995	-0.783	1.00	64.62
20130	O	SER	D	251	-128.049	8.255	-0.318	1.00	64.77
20131	N	SER	D	252	-129.330	7.281	-1.890	1.00	65.08
20132	CA	SER	D	252	-128.195	6.760	-2.641	1.00	65.27
20133	CB	SER	D	252	-128.664	5.782	-3.724	1.00	65.35
20134	OG	SER	D	252	-129.605	4.846	-3.222	1.00	65.60
20135	C	SER	D	252	-127.450	7.921	-3.288	1.00	65.29



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**FIGURE 3 OG**

A	B	C	D	E	F	G	H	I	J
20136	O	SER	D	252	-126.265	7.814	-3.610	1.00	65.25
20137	N	VAL	D	253	-128.148	9.041	-3.452	1.00	65.23
20138	CA	VAL	D	253	-127.591	10.195	-4.152	1.00	65.31
20139	CB	VAL	D	253	-128.521	10.634	-5.295	1.00	65.51
20140	CG1	VAL	D	253	-129.757	11.329	-4.738	1.00	65.51
20141	CG2	VAL	D	253	-128.913	9.432	-6.154	1.00	65.72
20142	C	VAL	D	253	-127.292	11.409	-3.276	1.00	65.14
20143	O	VAL	D	253	-127.042	12.502	-3.781	1.00	65.12
20144	N	THR	D	254	-127.329	11.240	-1.963	1.00	64.89
20145	CA	THR	D	254	-126.983	12.357	-1.088	1.00	64.61
20146	CB	THR	D	254	-128.189	13.277	-0.840	1.00	64.72
20147	OG1	THR	D	254	-128.277	13.575	0.559	1.00	65.14
20148	CG2	THR	D	254	-129.486	12.547	-1.126	1.00	65.20
20149	C	THR	D	254	-126.346	11.912	0.224	1.00	64.05
20150	O	THR	D	254	-126.770	10.929	0.830	1.00	64.17
20151	N	ASN	D	255	-125.316	12.639	0.647	1.00	63.32
20152	CA	ASN	D	255	-124.585	12.276	1.853	1.00	62.59
20153	CB	ASN	D	255	-123.325	13.137	2.017	1.00	62.76
20154	CG	ASN	D	255	-122.100	12.516	1.358	1.00	63.08
20155	OD1	ASN	D	255	-122.011	11.298	1.225	1.00	62.12
20156	ND2	ASN	D	255	-121.146	13.356	0.951	1.00	66.29
20157	C	ASN	D	255	-125.433	12.296	3.122	1.00	61.81
20158	O	ASN	D	255	-126.110	13.280	3.427	1.00	61.42
20159	N	ALA	D	256	-125.388	11.178	3.841	1.00	60.91
20160	CA	ALA	D	256	-126.077	11.021	5.110	1.00	59.91
20161	CB	ALA	D	256	-125.513	9.831	5.849	1.00	59.96
20162	C	ALA	D	256	-125.938	12.274	5.962	1.00	59.39
20163	O	ALA	D	256	-124.894	12.933	5.974	1.00	59.13
20164	N	THR	D	257	-126.997	12.615	6.675	1.00	58.66
20165	CA	THR	D	257	-126.920	13.772	7.547	1.00	58.14
20166	CB	THR	D	257	-128.047	14.774	7.223	1.00	58.28
20167	OG1	THR	D	257	-128.258	15.656	8.336	1.00	58.82
20168	CG2	THR	D	257	-129.378	14.045	7.060	1.00	58.70
20169	C	THR	D	257	-126.930	13.318	9.008	1.00	57.32
20170	O	THR	D	257	-127.872	12.682	9.472	1.00	57.48
20171	N	SER	D	258	-125.848	13.610	9.715	1.00	56.10
20172	CA	SER	D	258	-125.742	13.228	11.110	1.00	54.93
20173	CB	SER	D	258	-124.360	12.647	11.411	1.00	54.90
20174	OG	SER	D	258	-124.260	11.321	10.925	1.00	54.88
20175	C	SER	D	258	-126.005	14.443	11.971	1.00	54.33
20176	O	SER	D	258	-125.424	15.506	11.763	1.00	54.02
20177	N	ILE	D	259	-126.907	14.293	12.929	1.00	53.54
20178	CA	ILE	D	259	-127.223	15.392	13.815	1.00	53.01
20179	CB	ILE	D	259	-128.711	15.356	14.211	1.00	53.02
20180	CG1	ILE	D	259	-129.598	15.420	12.966	1.00	53.18
20181	CD1	ILE	D	259	-129.184	16.476	11.957	1.00	52.80
20182	CG2	ILE	D	259	-129.040	16.487	15.170	1.00	52.69
20183	C	ILE	D	259	-126.336	15.247	15.037	1.00	52.78
20184	O	ILE	D	259	-126.327	14.200	15.685	1.00	52.90
20185	N	GLN	D	260	-125.577	16.289	15.343	1.00	52.39
20186	CA	GLN	D	260	-124.690	16.233	16.488	1.00	52.17

**REPLACEMENT SHEET**  
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**FIGURE 3 OH**

A	B	C	D	E	F	G	H	I	J
20187	CB	GLN	D	260	-123.464	17.128	16.296	1.00	52.18
20188	CG	GLN	D	260	-122.292	16.735	17.200	1.00	52.37
20189	CD	GLN	D	260	-121.170	17.750	17.197	1.00	53.04
20190	OE1	GLN	D	260	-121.019	18.519	16.245	1.00	52.54
20191	NE2	GLN	D	260	-120.378	17.761	18.267	1.00	52.48
20192	C	GLN	D	260	-125.408	16.611	17.771	1.00	51.82
20193	O	GLN	D	260	-126.126	17.616	17.832	1.00	51.67
20194	N	ILE	D	261	-125.227	15.793	18.800	1.00	51.04
20195	CA	ILE	D	261	-125.777	16.138	20.088	1.00	50.27
20196	CB	ILE	D	261	-126.433	14.940	20.751	1.00	49.94
20197	CG1	ILE	D	261	-127.515	14.372	19.846	1.00	49.61
20198	CD1	ILE	D	261	-128.618	13.668	20.593	1.00	46.90
20199	CG2	ILE	D	261	-127.076	15.354	22.049	1.00	50.39
20200	C	ILE	D	261	-124.620	16.668	20.905	1.00	50.03
20201	O	ILE	D	261	-123.684	15.946	21.222	1.00	50.14
20202	N	THR	D	262	-124.659	17.949	21.221	1.00	49.68
20203	CA	THR	D	262	-123.566	18.522	21.974	1.00	49.18
20204	CB	THR	D	262	-123.579	20.049	21.885	1.00	49.33
20205	OG1	THR	D	262	-122.251	20.542	22.099	1.00	49.03
20206	CG2	THR	D	262	-124.385	20.653	23.044	1.00	49.98
20207	C	THR	D	262	-123.640	18.063	23.422	1.00	48.87
20208	O	THR	D	262	-124.658	17.528	23.868	1.00	48.87
20209	N	ALA	D	263	-122.553	18.281	24.146	1.00	47.91
20210	CA	ALA	D	263	-122.459	17.867	25.527	1.00	47.07
20211	CB	ALA	D	263	-121.045	17.352	25.827	1.00	46.67
20212	C	ALA	D	263	-122.806	19.023	26.445	1.00	46.38
20213	O	ALA	D	263	-122.577	20.183	26.116	1.00	46.72
20214	N	PRO	D	264	-123.352	18.693	27.603	1.00	45.49
20215	CA	PRO	D	264	-123.705	19.687	28.608	1.00	44.96
20216	CB	PRO	D	264	-123.808	18.854	29.887	1.00	44.78
20217	CG	PRO	D	264	-124.261	17.544	29.424	1.00	45.48
20218	CD	PRO	D	264	-123.676	17.327	28.038	1.00	45.73
20219	C	PRO	D	264	-122.591	20.706	28.767	1.00	44.18
20220	O	PRO	D	264	-121.407	20.364	28.782	1.00	43.79
20221	N	ALA	D	265	-122.988	21.960	28.890	1.00	43.13
20222	CA	ALA	D	265	-122.042	23.037	29.069	1.00	42.51
20223	CB	ALA	D	265	-122.793	24.338	29.347	1.00	42.62
20224	C	ALA	D	265	-121.076	22.739	30.209	1.00	41.58
20225	O	ALA	D	265	-119.896	23.040	30.107	1.00	41.21
20226	N	SER	D	266	-121.591	22.155	31.291	1.00	40.80
20227	CA	SER	D	266	-120.781	21.887	32.486	1.00	40.09
20228	CB	SER	D	266	-121.655	21.455	33.672	1.00	39.70
20229	OG	SER	D	266	-122.396	20.300	33.344	1.00	39.99
20230	C	SER	D	266	-119.694	20.850	32.207	1.00	39.33
20231	O	SER	D	266	-118.737	20.732	32.965	1.00	38.97
20232	N	MET	D	267	-119.861	20.124	31.106	1.00	38.50
20233	CA	MET	D	267	-118.891	19.159	30.633	1.00	38.27
20234	CB	MET	D	267	-119.604	18.030	29.889	1.00	37.83
20235	CG	MET	D	267	-120.343	17.102	30.817	1.00	37.74
20236	SD	MET	D	267	-119.194	16.089	31.788	1.00	39.60
20237	CE	MET	D	267	-120.079	15.964	33.348	1.00	38.25

**REPLACEMENT SHEET**  
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**FIGURE 3 OI**

A	B	C	D	E	F	G	H	I	J
20238	C	MET	D	267	-117.883	19.811	29.700	1.00	38.44
20239	O	MET	D	267	-116.689	19.525	29.750	1.00	38.63
20240	N	LEU	D	268	-118.368	20.700	28.846	1.00	38.48
20241	CA	LEU	D	268	-117.510	21.337	27.864	1.00	38.50
20242	CB	LEU	D	268	-118.349	22.071	26.820	1.00	38.67
20243	CG	LEU	D	268	-119.297	21.189	26.016	1.00	38.57
20244	CD1	LEU	D	268	-120.371	22.037	25.344	1.00	38.62
20245	CD2	LEU	D	268	-118.534	20.314	24.997	1.00	37.83
20246	C	LEU	D	268	-116.518	22.290	28.483	1.00	38.46
20247	O	LEU	D	268	-115.599	22.734	27.817	1.00	38.96
20248	N	ILE	D	269	-116.700	22.623	29.751	1.00	38.42
20249	CA	ILE	D	269	-115.759	23.521	30.405	1.00	38.59
20250	CB	ILE	D	269	-116.273	23.896	31.798	1.00	38.86
20251	CG1	ILE	D	269	-115.503	25.095	32.348	1.00	40.56
20252	CD1	ILE	D	269	-116.039	26.428	31.878	1.00	43.56
20253	CG2	ILE	D	269	-116.139	22.719	32.745	1.00	40.22
20254	C	ILE	D	269	-114.348	22.906	30.502	1.00	37.84
20255	O	ILE	D	269	-113.385	23.609	30.794	1.00	38.38
20256	N	GLY	D	270	-114.225	21.603	30.249	1.00	36.77
20257	CA	GLY	D	270	-112.932	20.932	30.309	1.00	35.46
20258	C	GLY	D	270	-112.956	19.568	29.643	1.00	34.32
20259	O	GLY	D	270	-113.880	19.259	28.891	1.00	34.07
20260	N	ASP	D	271	-111.944	18.747	29.903	1.00	33.67
20261	CA	ASP	D	271	-111.924	17.389	29.350	1.00	33.32
20262	CB	ASP	D	271	-110.607	16.681	29.681	1.00	33.79
20263	CG	ASP	D	271	-109.419	17.359	29.086	1.00	35.02
20264	OD1	ASP	D	271	-108.276	16.885	29.328	1.00	35.95
20265	OD2	ASP	D	271	-109.533	18.378	28.366	1.00	37.23
20266	C	ASP	D	271	-113.050	16.582	29.971	1.00	32.51
20267	O	ASP	D	271	-113.351	16.734	31.161	1.00	32.49
20268	N	HIS	D	272	-113.637	15.687	29.197	1.00	31.91
20269	CA	HIS	D	272	-114.741	14.884	29.697	1.00	32.19
20270	CB	HIS	D	272	-116.041	15.678	29.568	1.00	32.11
20271	CG	HIS	D	272	-116.228	16.270	28.208	1.00	32.35
20272	ND1	HIS	D	272	-115.644	17.463	27.835	1.00	32.50
20273	CE1	HIS	D	272	-115.948	17.718	26.573	1.00	34.67
20274	NE2	HIS	D	272	-116.697	16.730	26.113	1.00	33.22
20275	CD2	HIS	D	272	-116.877	15.804	27.115	1.00	31.47
20276	C	HIS	D	272	-114.846	13.621	28.862	1.00	32.29
20277	O	HIS	D	272	-114.106	13.449	27.903	1.00	32.69
20278	N	TYR	D	273	-115.778	12.750	29.218	1.00	32.52
20279	CA	TYR	D	273	-115.986	11.522	28.475	1.00	33.29
20280	CB	TYR	D	273	-115.498	10.302	29.281	1.00	33.12
20281	CG	TYR	D	273	-114.110	10.379	29.864	1.00	31.73
20282	CD1	TYR	D	273	-112.994	10.182	29.067	1.00	30.36
20283	CE1	TYR	D	273	-111.727	10.238	29.590	1.00	31.17
20284	CZ	TYR	D	273	-111.546	10.479	30.938	1.00	29.98
20285	OH	TYR	D	273	-110.276	10.517	31.445	1.00	28.23
20286	CE2	TYR	D	273	-112.637	10.675	31.767	1.00	30.64
20287	CD2	TYR	D	273	-113.916	10.613	31.225	1.00	31.15
20288	C	TYR	D	273	-117.464	11.296	28.248	1.00	34.20

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**FIGURE 3 OJ**

A	B	C	D	E	F	G	H	I	J
20289	O	TYR	D	273	-118.312	11.815	28.980	1.00	34.77
20290	N	LEU	D	274	-117.778	10.491	27.247	1.00	34.83
20291	CA	LEU	D	274	-119.139	10.032	27.073	1.00	34.79
20292	CB	LEU	D	274	-119.461	9.828	25.592	1.00	34.45
20293	CG	LEU	D	274	-120.756	9.043	25.315	1.00	35.09
20294	CD1	LEU	D	274	-122.002	9.840	25.764	1.00	34.24
20295	CD2	LEU	D	274	-120.873	8.607	23.841	1.00	34.39
20296	C	LEU	D	274	-119.106	8.702	27.808	1.00	35.39
20297	O	LEU	D	274	-118.335	7.821	27.449	1.00	35.10
20298	N	CYS	D	275	-119.908	8.548	28.854	1.00	36.04
20299	CA	CYS	D	275	-119.845	7.315	29.628	1.00	36.43
20300	CB	CYS	D	275	-119.626	7.592	31.117	1.00	36.48
20301	SG	CYS	D	275	-120.887	8.631	31.904	1.00	38.06
20302	C	CYS	D	275	-121.021	6.383	29.437	1.00	36.83
20303	O	CYS	D	275	-120.890	5.191	29.672	1.00	37.45
20304	N	ASP	D	276	-122.170	6.895	29.018	1.00	37.00
20305	CA	ASP	D	276	-123.293	5.994	28.803	1.00	37.55
20306	CB	ASP	D	276	-124.038	5.739	30.109	1.00	37.78
20307	CG	ASP	D	276	-125.085	4.659	29.975	1.00	39.17
20308	OD1	ASP	D	276	-124.723	3.465	30.035	1.00	41.65
20309	OD2	ASP	D	276	-126.302	4.898	29.807	1.00	42.31
20310	C	ASP	D	276	-124.294	6.456	27.750	1.00	37.47
20311	O	ASP	D	276	-124.621	7.635	27.660	1.00	37.06
20312	N	VAL	D	277	-124.773	5.503	26.962	1.00	37.44
20313	CA	VAL	D	277	-125.808	5.772	25.992	1.00	37.51
20314	CB	VAL	D	277	-125.306	5.705	24.530	1.00	37.76
20315	CG1	VAL	D	277	-126.319	6.388	23.616	1.00	37.24
20316	CG2	VAL	D	277	-123.955	6.356	24.373	1.00	37.23
20317	C	VAL	D	277	-126.907	4.728	26.161	1.00	37.85
20318	O	VAL	D	277	-126.650	3.525	26.096	1.00	37.12
20319	N	THR	D	278	-128.127	5.206	26.395	1.00	38.53
20320	CA	THR	D	278	-129.295	4.344	26.496	1.00	39.41
20321	CB	THR	D	278	-129.676	4.161	27.975	1.00	39.65
20322	OG1	THR	D	278	-128.606	3.517	28.693	1.00	41.23
20323	CG2	THR	D	278	-130.834	3.197	28.100	1.00	38.74
20324	C	THR	D	278	-130.491	4.969	25.761	1.00	40.15
20325	O	THR	D	278	-130.845	6.122	26.017	1.00	40.47
20326	N	TRP	D	279	-131.111	4.232	24.846	1.00	40.72
20327	CA	TRP	D	279	-132.348	4.720	24.239	1.00	41.37
20328	CB	TRP	D	279	-132.661	3.973	22.946	1.00	41.57
20329	CG	TRP	D	279	-131.807	4.394	21.810	1.00	42.65
20330	CD1	TRP	D	279	-130.682	3.765	21.342	1.00	42.53
20331	NE1	TRP	D	279	-130.158	4.465	20.282	1.00	43.68
20332	CE2	TRP	D	279	-130.945	5.564	20.041	1.00	44.02
20333	CD2	TRP	D	279	-131.993	5.547	20.987	1.00	43.93
20334	CE3	TRP	D	279	-132.942	6.572	20.950	1.00	45.59
20335	CZ3	TRP	D	279	-132.820	7.564	19.984	1.00	47.26
20336	CH2	TRP	D	279	-131.767	7.550	19.059	1.00	46.13
20337	CZ2	TRP	D	279	-130.827	6.555	19.070	1.00	44.83
20338	C	TRP	D	279	-133.491	4.531	25.235	1.00	41.48
20339	O	TRP	D	279	-133.561	3.507	25.908	1.00	41.96

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FIGURE 3 OK

A	B	C	D	E	F	G	H	I	J
20340	N	ALA	D	280	-134.372	5.521	25.332	1.00	41.41
20341	CA	ALA	D	280	-135.516	5.479	26.241	1.00	41.43
20342	CB	ALA	D	280	-135.746	6.848	26.825	1.00	41.35
20343	C	ALA	D	280	-136.768	5.024	25.496	1.00	41.92
20344	O	ALA	D	280	-137.494	4.133	25.943	1.00	41.19
20345	N	THR	D	281	-137.005	5.671	24.356	1.00	42.20
20346	CA	THR	D	281	-138.124	5.376	23.486	1.00	42.77
20347	CB	THR	D	281	-139.229	6.414	23.659	1.00	42.73
20348	OG1	THR	D	281	-138.795	7.646	23.064	1.00	42.34
20349	CG2	THR	D	281	-139.449	6.762	25.122	1.00	42.31
20350	C	THR	D	281	-137.617	5.536	22.069	1.00	43.54
20351	O	THR	D	281	-136.468	5.946	21.853	1.00	43.78
20352	N	GLN	D	282	-138.494	5.252	21.106	1.00	43.58
20353	CA	GLN	D	282	-138.169	5.374	19.687	1.00	43.34
20354	CB	GLN	D	282	-139.431	5.195	18.845	1.00	43.27
20355	CG	GLN	D	282	-140.158	3.909	19.121	1.00	43.95
20356	CD	GLN	D	282	-139.309	2.709	18.820	1.00	44.66
20357	OE1	GLN	D	282	-138.206	2.849	18.278	1.00	47.30
20358	NE2	GLN	D	282	-139.802	1.522	19.170	1.00	43.65
20359	C	GLN	D	282	-137.590	6.725	19.355	1.00	42.89
20360	O	GLN	D	282	-136.854	6.873	18.389	1.00	42.72
20361	N	GLU	D	283	-137.924	7.720	20.158	1.00	42.79
20362	CA	GLU	D	283	-137.516	9.074	19.839	1.00	42.95
20363	CB	GLU	D	283	-138.734	9.865	19.349	1.00	43.48
20364	CG	GLU	D	283	-139.167	9.566	17.906	1.00	45.44
20365	CD	GLU	D	283	-140.418	10.348	17.491	1.00	48.85
20366	OE1	GLU	D	283	-141.304	9.755	16.816	1.00	49.34
20367	OE2	GLU	D	283	-140.522	11.551	17.845	1.00	46.90
20368	C	GLU	D	283	-136.835	9.811	20.986	1.00	42.50
20369	O	GLU	D	283	-136.660	11.021	20.926	1.00	42.35
20370	N	ARG	D	284	-136.450	9.086	22.031	1.00	42.30
20371	CA	ARG	D	284	-135.792	9.710	23.173	1.00	41.72
20372	CB	ARG	D	284	-136.735	9.763	24.368	1.00	42.06
20373	CG	ARG	D	284	-136.136	10.438	25.583	1.00	43.16
20374	CD	ARG	D	284	-137.154	10.734	26.671	1.00	45.69
20375	NE	ARG	D	284	-138.146	11.706	26.221	1.00	46.17
20376	CZ	ARG	D	284	-139.431	11.660	26.544	1.00	46.79
20377	NH1	ARG	D	284	-140.261	12.587	26.083	1.00	45.42
20378	NH2	ARG	D	284	-139.886	10.691	27.335	1.00	46.32
20379	C	ARG	D	284	-134.514	8.990	23.568	1.00	40.91
20380	O	ARG	D	284	-134.515	7.788	23.805	1.00	40.62
20381	N	ILE	D	285	-133.421	9.731	23.656	1.00	40.02
20382	CA	ILE	D	285	-132.170	9.109	24.036	1.00	39.17
20383	CB	ILE	D	285	-131.208	9.053	22.818	1.00	39.17
20384	CG1	ILE	D	285	-130.025	8.132	23.089	1.00	39.43
20385	CD1	ILE	D	285	-129.076	8.043	21.909	1.00	39.70
20386	CG2	ILE	D	285	-130.727	10.426	22.424	1.00	39.53
20387	C	ILE	D	285	-131.540	9.805	25.229	1.00	38.69
20388	O	ILE	D	285	-131.601	11.023	25.339	1.00	38.19
20389	N	SER	D	286	-130.971	9.027	26.155	1.00	37.96
20390	CA	SER	D	286	-130.228	9.644	27.246	1.00	37.07

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**FIGURE 3 OL**

A	B	C	D	E	F	G	H	I	J
20391	CB	SER	D	286	-130.787	9.287	28.631	1.00	36.91
20392	OG	SER	D	286	-130.305	8.049	29.100	1.00	36.51
20393	C	SER	D	286	-128.742	9.325	27.121	1.00	36.39
20394	O	SER	D	286	-128.344	8.215	26.757	1.00	36.15
20395	N	LEU	D	287	-127.940	10.336	27.404	1.00	35.78
20396	CA	LEU	D	287	-126.498	10.248	27.327	1.00	35.18
20397	CB	LEU	D	287	-125.957	11.283	26.338	1.00	35.62
20398	CG	LEU	D	287	-125.957	11.077	24.822	1.00	35.97
20399	CD1	LEU	D	287	-126.134	12.431	24.182	1.00	36.47
20400	CD2	LEU	D	287	-127.031	10.140	24.357	1.00	36.95
20401	C	LEU	D	287	-125.994	10.652	28.683	1.00	34.51
20402	O	LEU	D	287	-126.520	11.597	29.279	1.00	34.09
20403	N	GLN	D	288	-124.984	9.944	29.177	1.00	33.47
20404	CA	GLN	D	288	-124.341	10.347	30.420	1.00	32.77
20405	CB	GLN	D	288	-124.354	9.230	31.461	1.00	33.02
20406	CG	GLN	D	288	-125.640	9.149	32.265	1.00	33.25
20407	CD	GLN	D	288	-125.781	7.848	33.036	1.00	33.72
20408	OE1	GLN	D	288	-126.381	6.890	32.546	1.00	34.15
20409	NE2	GLN	D	288	-125.253	7.818	34.247	1.00	34.08
20410	C	GLN	D	288	-122.924	10.786	30.121	1.00	32.53
20411	O	GLN	D	288	-122.161	10.118	29.412	1.00	32.11
20412	N	TRP	D	289	-122.580	11.937	30.656	1.00	32.67
20413	CA	TRP	D	289	-121.262	12.465	30.478	1.00	32.77
20414	CB	TRP	D	289	-121.336	13.869	29.878	1.00	32.94
20415	CG	TRP	D	289	-121.977	13.907	28.527	1.00	33.67
20416	CD1	TRP	D	289	-123.315	13.991	28.255	1.00	34.03
20417	NE1	TRP	D	289	-123.517	14.015	26.897	1.00	35.17
20418	CE2	TRP	D	289	-122.303	13.945	26.265	1.00	35.17
20419	CD2	TRP	D	289	-121.312	13.878	27.264	1.00	34.12
20420	CE3	TRP	D	289	-119.970	13.802	26.870	1.00	35.13
20421	CZ3	TRP	D	289	-119.670	13.792	25.519	1.00	35.56
20422	CH2	TRP	D	289	-120.683	13.851	24.550	1.00	35.24
20423	CZ2	TRP	D	289	-122.001	13.920	24.901	1.00	35.14
20424	C	TRP	D	289	-120.600	12.501	31.843	1.00	32.64
20425	O	TRP	D	289	-121.267	12.632	32.862	1.00	32.65
20426	N	LEU	D	290	-119.276	12.433	31.835	1.00	32.23
20427	CA	LEU	D	290	-118.480	12.396	33.035	1.00	31.50
20428	CB	LEU	D	290	-117.977	10.954	33.193	1.00	31.05
20429	CG	LEU	D	290	-117.433	10.401	34.510	1.00	31.54
20430	CD1	LEU	D	290	-116.676	9.076	34.307	1.00	28.56
20431	CD2	LEU	D	290	-116.554	11.423	35.166	1.00	33.60
20432	C	LEU	D	290	-117.293	13.336	32.802	1.00	31.41
20433	O	LEU	D	290	-116.667	13.265	31.745	1.00	30.88
20434	N	ARG	D	291	-116.978	14.203	33.764	1.00	31.88
20435	CA	ARG	D	291	-115.771	15.045	33.667	1.00	32.91
20436	CB	ARG	D	291	-115.707	16.094	34.777	1.00	32.88
20437	CG	ARG	D	291	-116.716	17.216	34.692	1.00	35.43
20438	CD	ARG	D	291	-116.485	18.321	35.708	1.00	37.01
20439	NE	ARG	D	291	-117.415	19.416	35.493	1.00	41.05
20440	CZ	ARG	D	291	-117.945	20.154	36.461	1.00	42.21
20441	NH1	ARG	D	291	-118.791	21.128	36.159	1.00	41.92

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**FIGURE 3 OM**

A	B	C	D	E	F	G	H	I	J
20442	NH2	ARG	D	291	-117.630	19.919	37.725	1.00	42.53
20443	C	ARG	D	291	-114.535	14.167	33.825	1.00	32.92
20444	O	ARG	D	291	-114.645	13.026	34.262	1.00	33.01
20445	N	ARG	D	292	-113.363	14.723	33.515	1.00	32.96
20446	CA	ARG	D	292	-112.110	13.990	33.596	1.00	32.38
20447	CB	ARG	D	292	-110.986	14.716	32.858	1.00	32.31
20448	CG	ARG	D	292	-109.677	13.916	32.806	1.00	30.46
20449	CD	ARG	D	292	-108.648	14.447	31.837	1.00	28.09
20450	NE	ARG	D	292	-107.460	13.621	31.878	1.00	29.22
20451	CZ	ARG	D	292	-106.444	13.701	31.032	1.00	27.77
20452	NH1	ARG	D	292	-105.420	12.880	31.189	1.00	25.10
20453	NH2	ARG	D	292	-106.445	14.600	30.048	1.00	26.35
20454	C	ARG	D	292	-111.774	13.762	35.063	1.00	32.53
20455	O	ARG	D	292	-111.109	12.787	35.435	1.00	32.20
20456	N	ILE	D	293	-112.217	14.686	35.893	1.00	32.32
20457	CA	ILE	D	293	-112.211	14.435	37.318	1.00	32.41
20458	CB	ILE	D	293	-112.136	15.741	38.079	1.00	32.54
20459	CG1	ILE	D	293	-110.732	16.327	37.879	1.00	32.98
20460	CD1	ILE	D	293	-110.643	17.819	38.099	1.00	36.74
20461	CG2	ILE	D	293	-112.359	15.518	39.559	1.00	32.59
20462	C	ILE	D	293	-113.535	13.701	37.448	1.00	32.41
20463	O	ILE	D	293	-114.598	14.297	37.340	1.00	33.13
20464	N	GLN	D	294	-113.466	12.385	37.591	1.00	32.20
20465	CA	GLN	D	294	-114.659	11.551	37.500	1.00	32.03
20466	CB	GLN	D	294	-114.275	10.138	37.029	1.00	31.78
20467	CG	GLN	D	294	-113.344	10.123	35.810	1.00	29.87
20468	CD	GLN	D	294	-112.862	8.725	35.449	1.00	28.26
20469	OE1	GLN	D	294	-113.610	7.741	35.563	1.00	27.79
20470	NE2	GLN	D	294	-111.624	8.633	35.010	1.00	25.11
20471	C	GLN	D	294	-115.556	11.475	38.744	1.00	32.55
20472	O	GLN	D	294	-116.094	10.409	39.052	1.00	32.15
20473	N	ASN	D	295	-115.727	12.599	39.432	1.00	33.11
20474	CA	ASN	D	295	-116.619	12.665	40.587	1.00	34.47
20475	CB	ASN	D	295	-115.913	13.277	41.791	1.00	34.41
20476	CG	ASN	D	295	-115.469	14.704	41.537	1.00	36.21
20477	OD1	ASN	D	295	-115.681	15.248	40.448	1.00	35.00
20478	ND2	ASN	D	295	-114.846	15.320	42.542	1.00	41.71
20479	C	ASN	D	295	-117.848	13.507	40.267	1.00	34.82
20480	O	ASN	D	295	-118.524	13.998	41.176	1.00	34.45
20481	N	TYR	D	296	-118.137	13.664	38.975	1.00	35.06
20482	CA	TYR	D	296	-119.256	14.488	38.543	1.00	35.12
20483	CB	TYR	D	296	-118.833	15.954	38.571	1.00	35.37
20484	CG	TYR	D	296	-119.946	16.957	38.360	1.00	37.19
20485	CD1	TYR	D	296	-120.609	17.530	39.444	1.00	38.39
20486	CE1	TYR	D	296	-121.626	18.465	39.259	1.00	40.01
20487	CZ	TYR	D	296	-121.976	18.838	37.978	1.00	41.13
20488	OH	TYR	D	296	-122.980	19.757	37.780	1.00	42.62
20489	CE2	TYR	D	296	-121.324	18.285	36.889	1.00	40.09
20490	CD2	TYR	D	296	-120.314	17.356	37.084	1.00	37.55
20491	C	TYR	D	296	-119.709	14.127	37.136	1.00	36.16
20492	O	TYR	D	296	-118.988	14.337	36.162	1.00	34.80

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**FIGURE 3 ON**

A	B	C	D	E	F	G	H	I	J
20493	N	SER	D	297	-120.908	13.582	37.025	1.00	35.38
20494	CA	SER	D	297	-121.451	13.263	35.721	1.00	36.16
20495	CB	SER	D	297	-121.494	11.762	35.502	1.00	35.37
20496	OG	SER	D	297	-122.413	11.168	36.377	1.00	35.55
20497	C	SER	D	297	-122.849	13.858	35.561	1.00	37.14
20498	O	SER	D	297	-123.520	14.191	36.538	1.00	37.05
20499	N	VAL	D	298	-123.275	13.993	34.312	1.00	38.56
20500	CA	VAL	D	298	-124.569	14.571	34.001	1.00	39.87
20501	CB	VAL	D	298	-124.418	15.988	33.414	1.00	39.92
20502	CG1	VAL	D	298	-123.878	16.937	34.446	1.00	39.22
20503	CG2	VAL	D	298	-125.762	16.485	32.869	1.00	40.40
20504	C	VAL	D	298	-125.279	13.735	32.960	1.00	40.81
20505	O	VAL	D	298	-124.680	13.363	31.960	1.00	40.95
20506	N	MET	D	299	-126.545	13.417	33.211	1.00	42.07
20507	CA	MET	D	299	-127.357	12.754	32.209	1.00	43.04
20508	CB	MET	D	299	-128.318	11.730	32.814	1.00	43.12
20509	CG	MET	D	299	-129.343	11.197	31.808	1.00	42.96
20510	SD	MET	D	299	-130.440	9.940	32.496	1.00	44.48
20511	CE	MET	D	299	-130.314	10.360	34.181	1.00	46.63
20512	C	MET	D	299	-128.151	13.805	31.439	1.00	44.09
20513	O	MET	D	299	-128.743	14.720	32.020	1.00	43.89
20514	N	ASP	D	300	-128.134	13.662	30.122	1.00	45.17
20515	CA	ASP	D	300	-128.873	14.510	29.221	1.00	46.32
20516	CB	ASP	D	300	-127.955	15.027	28.120	1.00	46.52
20517	CG	ASP	D	300	-127.772	16.516	28.173	1.00	47.88
20518	OD1	ASP	D	300	-126.715	17.002	27.725	1.00	50.30
20519	OD2	ASP	D	300	-128.635	17.287	28.628	1.00	50.64
20520	C	ASP	D	300	-129.926	13.643	28.589	1.00	47.06
20521	O	ASP	D	300	-129.624	12.575	28.062	1.00	47.36
20522	N	ILE	D	301	-131.170	14.090	28.641	1.00	48.02
20523	CA	ILE	D	301	-132.242	13.358	28.006	1.00	48.60
20524	CB	ILE	D	301	-133.408	13.185	28.991	1.00	48.50
20525	CG1	ILE	D	301	-132.894	12.408	30.212	1.00	48.51
20526	CD1	ILE	D	301	-133.961	11.793	31.083	1.00	48.21
20527	CG2	ILE	D	301	-134.562	12.441	28.345	1.00	48.06
20528	C	ILE	D	301	-132.583	14.133	26.738	1.00	49.46
20529	O	ILE	D	301	-132.856	15.328	26.786	1.00	49.71
20530	N	CYS	D	302	-132.521	13.457	25.600	1.00	50.41
20531	CA	CYS	D	302	-132.647	14.130	24.315	1.00	51.74
20532	CB	CYS	D	302	-131.331	14.004	23.536	1.00	51.94
20533	SG	CYS	D	302	-129.912	14.700	24.420	1.00	53.42
20534	C	CYS	D	302	-133.813	13.662	23.463	1.00	52.24
20535	O	CYS	D	302	-133.946	12.472	23.163	1.00	52.21
20536	N	ASP	D	303	-134.642	14.619	23.061	1.00	53.09
20537	CA	ASP	D	303	-135.832	14.334	22.271	1.00	54.23
20538	CB	ASP	D	303	-137.057	15.022	22.887	1.00	54.39
20539	CG	ASP	D	303	-137.524	14.344	24.169	1.00	54.66
20540	OD1	ASP	D	303	-136.697	14.174	25.088	1.00	55.54
20541	OD2	ASP	D	303	-138.692	13.945	24.347	1.00	54.11
20542	C	ASP	D	303	-135.692	14.734	20.807	1.00	54.70
20543	O	ASP	D	303	-135.141	15.778	20.474	1.00	54.30



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**FIGURE 3 OO**

A	B	C	D	E	F	G	H	I	J
20544	N	TYR	D	304	-136.200	13.888	19.930	1.00	56.01
20545	CA	TYR	D	304	-136.153	14.183	18.515	1.00	57.68
20546	CB	TYR	D	304	-136.262	12.906	17.695	1.00	57.57
20547	CG	TYR	D	304	-136.301	13.173	16.209	1.00	58.83
20548	CD1	TYR	D	304	-135.197	13.707	15.553	1.00	59.38
20549	CE1	TYR	D	304	-135.228	13.966	14.196	1.00	59.37
20550	CZ	TYR	D	304	-136.370	13.693	13.475	1.00	59.89
20551	OH	TYR	D	304	-136.397	13.941	12.118	1.00	59.96
20552	OE2	TYR	D	304	-137.480	13.162	14.102	1.00	59.92
20553	CD2	TYR	D	304	-137.445	12.913	15.462	1.00	59.06
20554	C	TYR	D	304	-137.267	15.143	18.109	1.00	58.63
20555	O	TYR	D	304	-138.422	14.745	18.012	1.00	58.68
20556	N	ASP	D	305	-136.922	16.407	17.887	1.00	59.92
20557	CA	ASP	D	305	-137.902	17.361	17.395	1.00	61.44
20558	CB	ASP	D	305	-137.400	18.795	17.523	1.00	61.67
20559	CG	ASP	D	305	-138.430	19.803	17.065	1.00	62.80
20560	OD1	ASP	D	305	-138.633	20.826	17.764	1.00	62.88
20561	OD2	ASP	D	305	-139.087	19.637	16.012	1.00	63.63
20562	C	ASP	D	305	-138.175	16.999	15.938	1.00	61.97
20563	O	ASP	D	305	-137.269	16.973	15.113	1.00	61.92
20564	N	GLU	D	306	-139.429	16.708	15.627	1.00	63.01
20565	CA	GLU	D	306	-139.767	16.182	14.310	1.00	63.99
20566	CB	GLU	D	306	-141.091	15.429	14.356	1.00	64.23
20567	CG	GLU	D	306	-141.119	14.228	13.434	1.00	66.05
20568	CD	GLU	D	306	-142.517	13.673	13.237	1.00	68.18
20569	OE1	GLU	D	306	-143.390	13.927	14.101	1.00	68.46
20570	OE2	GLU	D	306	-142.739	12.980	12.216	1.00	68.71
20571	C	GLU	D	306	-139.802	17.239	13.222	1.00	64.19
20572	O	GLU	D	306	-139.649	16.924	12.045	1.00	64.14
20573	N	SER	D	307	-140.012	18.487	13.621	1.00	64.69
20574	CA	SER	D	307	-140.004	19.595	12.680	1.00	65.06
20575	CB	SER	D	307	-140.691	20.821	13.282	1.00	65.19
20576	OG	SER	D	307	-141.988	20.490	13.763	1.00	65.21
20577	C	SER	D	307	-138.549	19.896	12.355	1.00	65.21
20578	O	SER	D	307	-138.081	19.586	11.258	1.00	65.60
20579	N	SER	D	308	-137.835	20.461	13.332	1.00	65.02
20580	CA	SER	D	308	-136.411	20.789	13.207	1.00	64.38
20581	CB	SER	D	308	-135.793	21.013	14.589	1.00	64.52
20582	OG	SER	D	308	-135.747	22.393	14.902	1.00	65.23
20583	C	SER	D	308	-135.606	19.724	12.489	1.00	63.76
20584	O	SER	D	308	-134.656	20.036	11.773	1.00	63.76
20585	N	GLY	D	309	-135.979	18.466	12.698	1.00	63.19
20586	CA	GLY	D	309	-135.275	17.345	12.100	1.00	62.51
20587	C	GLY	D	309	-134.091	16.932	12.959	1.00	62.07
20588	O	GLY	D	309	-133.438	15.915	12.696	1.00	62.28
20589	N	ARG	D	310	-133.826	17.718	13.997	1.00	61.04
20590	CA	ARG	D	310	-132.707	17.455	14.883	1.00	60.56
20591	CB	ARG	D	310	-131.809	18.692	14.970	1.00	61.19
20592	CG	ARG	D	310	-132.446	19.896	15.631	1.00	62.68
20593	CD	ARG	D	310	-131.544	21.129	15.652	1.00	65.34
20594	NE	ARG	D	310	-131.768	22.029	14.520	1.00	66.16

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**FIGURE 3 OP**

A	B	C	D	E	F	G	H	I	J
20595	CZ	ARG	D	310	-131.081	21.998	13.380	1.00	67.31
20596	NH1	ARG	D	310	-131.357	22.870	12.413	1.00	66.51
20597	NH2	ARG	D	310	-130.119	21.097	13.201	1.00	67.36
20598	C	ARG	D	310	-133.123	16.973	16.283	1.00	59.42
20599	O	ARG	D	310	-134.267	16.569	16.497	1.00	59.28
20600	N	TRP	D	311	-132.182	17.011	17.227	1.00	58.05
20601	CA	TRP	D	311	-132.417	16.522	18.586	1.00	56.38
20602	CB	TRP	D	311	-131.471	15.371	18.886	1.00	55.45
20603	CG	TRP	D	311	-131.778	14.187	18.077	1.00	51.45
20604	CD1	TRP	D	311	-131.477	13.993	16.772	1.00	48.75
20605	NE1	TRP	D	311	-131.945	12.771	16.353	1.00	48.27
20606	CE2	TRP	D	311	-132.569	12.155	17.404	1.00	47.06
20607	CD2	TRP	D	311	-132.488	13.027	18.505	1.00	47.70
20608	CE3	TRP	D	311	-133.062	12.631	19.711	1.00	44.75
20609	CZ3	TRP	D	311	-133.677	11.410	19.779	1.00	44.35
20610	CH2	TRP	D	311	-133.744	10.567	18.670	1.00	44.07
20611	CZ2	TRP	D	311	-133.197	10.921	17.473	1.00	45.46
20612	C	TRP	D	311	-132.254	17.579	19.658	1.00	56.90
20613	O	TRP	D	311	-131.300	18.362	19.636	1.00	56.98
20614	N	ASN	D	312	-133.177	17.596	20.615	1.00	56.96
20615	CA	ASN	D	312	-133.102	18.574	21.695	1.00	57.11
20616	CB	ASN	D	312	-134.315	19.508	21.671	1.00	57.41
20617	CG	ASN	D	312	-134.052	20.792	20.885	1.00	58.91
20618	OD1	ASN	D	312	-132.897	21.208	20.709	1.00	59.51
20619	ND2	ASN	D	312	-135.128	21.434	20.420	1.00	58.89
20620	C	ASN	D	312	-132.954	17.948	23.070	1.00	56.68
20621	O	ASN	D	312	-133.574	16.930	23.370	1.00	56.68
20622	N	CYS	D	313	-132.133	18.569	23.906	1.00	56.20
20623	CA	CYS	D	313	-131.908	18.078	25.255	1.00	55.75
20624	CB	CYS	D	313	-130.443	17.686	25.445	1.00	55.84
20625	SG	CYS	D	313	-129.763	16.705	24.092	1.00	55.50
20626	C	CYS	D	313	-132.268	19.163	26.246	1.00	55.52
20627	O	CYS	D	313	-131.425	19.987	26.599	1.00	55.53
20628	N	LEU	D	314	-133.519	19.162	26.694	1.00	55.08
20629	CA	LEU	D	314	-133.976	20.158	27.651	1.00	54.79
20630	CB	LEU	D	314	-135.447	19.942	28.018	1.00	55.02
20631	CG	LEU	D	314	-136.506	20.571	27.104	1.00	55.62
20632	CD1	LEU	D	314	-137.176	19.536	26.206	1.00	55.79
20633	CD2	LEU	D	314	-135.908	21.728	26.288	1.00	56.04
20634	C	LEU	D	314	-133.129	20.177	28.915	1.00	54.45
20635	O	LEU	D	314	-132.995	19.167	29.608	1.00	54.22
20636	N	VAL	D	315	-132.569	21.345	29.199	1.00	53.93
20637	CA	VAL	D	315	-131.762	21.569	30.386	1.00	53.93
20638	CB	VAL	D	315	-131.346	23.042	30.470	1.00	53.93
20639	CG1	VAL	D	315	-130.998	23.423	31.888	1.00	54.90
20640	CG2	VAL	D	315	-130.176	23.314	29.524	1.00	54.82
20641	C	VAL	D	315	-132.478	21.187	31.679	1.00	53.48
20642	O	VAL	D	315	-131.846	20.806	32.663	1.00	53.58
20643	N	ALA	D	316	-133.799	21.295	31.672	1.00	53.18
20644	CA	ALA	D	316	-134.602	20.967	32.837	1.00	52.74
20645	CB	ALA	D	316	-135.996	21.530	32.684	1.00	52.92

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FIGURE 3 OQ

A	B	C	D	E	F	G	H	I	J
20646	C	ALA	D	316	-134.666	19.460	33.030	1.00	52.37
20647	O	ALA	D	316	-135.096	18.972	34.077	1.00	52.77
20648	N	ARG	D	317	-134.247	18.717	32.016	1.00	51.33
20649	CA	ARG	D	317	-134.253	17.274	32.135	1.00	50.77
20650	CB	ARG	D	317	-134.882	16.631	30.901	1.00	51.02
20651	CG	ARG	D	317	-136.108	17.366	30.428	1.00	52.18
20652	CD	ARG	D	317	-137.318	16.497	30.194	1.00	53.70
20653	NE	ARG	D	317	-137.391	15.960	28.842	1.00	54.03
20654	CZ	ARG	D	317	-138.480	16.017	28.084	1.00	54.06
20655	NH1	ARG	D	317	-138.470	15.493	26.864	1.00	53.60
20656	NH2	ARG	D	317	-139.579	16.600	28.547	1.00	52.91
20657	C	ARG	D	317	-132.858	16.717	32.399	1.00	49.84
20658	O	ARG	D	317	-132.619	15.529	32.209	1.00	49.58
20659	N	GLN	D	318	-131.942	17.577	32.836	1.00	48.91
20660	CA	GLN	D	318	-130.589	17.139	33.137	1.00	48.44
20661	CB	GLN	D	318	-129.603	18.306	33.094	1.00	48.44
20662	CG	GLN	D	318	-128.828	18.456	31.790	1.00	48.19
20663	CD	GLN	D	318	-127.857	19.628	31.827	1.00	48.03
20664	OE1	GLN	D	318	-127.772	20.396	30.870	1.00	49.25
20665	NE2	GLN	D	318	-127.131	19.774	32.935	1.00	48.01
20666	C	GLN	D	318	-130.544	16.478	34.512	1.00	48.18
20667	O	GLN	D	318	-131.259	16.883	35.438	1.00	48.50
20668	N	HIS	D	319	-129.713	15.455	34.648	1.00	46.99
20669	CA	HIS	D	319	-129.576	14.803	35.937	1.00	46.42
20670	CB	HIS	D	319	-130.256	13.442	35.930	1.00	46.33
20671	CG	HIS	D	319	-131.735	13.531	35.743	1.00	47.19
20672	ND1	HIS	D	319	-132.617	13.596	36.801	1.00	47.10
20673	CE1	HIS	D	319	-133.850	13.688	36.335	1.00	47.18
20674	NE2	HIS	D	319	-133.799	13.696	35.016	1.00	47.10
20675	CD2	HIS	D	319	-132.487	13.612	34.620	1.00	47.64
20676	C	HIS	D	319	-128.118	14.714	36.332	1.00	45.70
20677	O	HIS	D	319	-127.283	14.184	35.598	1.00	45.25
20678	N	ILE	D	320	-127.831	15.288	37.490	1.00	44.95
20679	CA	ILE	D	320	-126.497	15.329	38.023	1.00	44.45
20680	CB	ILE	D	320	-126.261	16.630	38.766	1.00	44.62
20681	CG1	ILE	D	320	-126.225	17.804	37.796	1.00	44.89
20682	CD1	ILE	D	320	-126.136	19.134	38.510	1.00	47.11
20683	CG2	ILE	D	320	-124.967	16.542	39.555	1.00	43.94
20684	C	ILE	D	320	-126.268	14.192	38.992	1.00	44.24
20685	O	ILE	D	320	-127.088	13.934	39.878	1.00	43.73
20686	N	GLU	D	321	-125.144	13.516	38.801	1.00	43.70
20687	CA	GLU	D	321	-124.720	12.461	39.697	1.00	43.55
20688	CB	GLU	D	321	-124.890	11.095	39.051	1.00	43.54
20689	CG	GLU	D	321	-124.672	9.948	40.019	1.00	44.31
20690	CD	GLU	D	321	-124.872	8.607	39.356	1.00	44.06
20691	OE1	GLU	D	321	-125.701	8.539	38.425	1.00	44.82
20692	OE2	GLU	D	321	-124.198	7.632	39.756	1.00	43.52
20693	C	GLU	D	321	-123.259	12.749	40.018	1.00	43.27
20694	O	GLU	D	321	-122.401	12.727	39.141	1.00	43.00
20695	N	MET	D	322	-123.013	13.091	41.274	1.00	42.93
20696	CA	MET	D	322	-121.685	13.406	41.758	1.00	42.92

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FIGURE 3 QR

A	B	C	D	E	F	G	H	I	J
20697	CB	MET	D	322	-121.601	14.891	42.095	1.00	43.71
20698	CG	MET	D	322	-122.219	15.230	43.448	1.00	46.97
20699	SD	MET	D	322	-122.326	17.005	43.743	1.00	55.22
20700	CE	MET	D	322	-123.151	17.545	42.282	1.00	52.68
20701	C	MET	D	322	-121.385	12.600	43.019	1.00	41.70
20702	O	MET	D	322	-122.237	11.876	43.538	1.00	41.07
20703	N	SER	D	323	-120.154	12.722	43.486	1.00	40.83
20704	CA	SER	D	323	-119.723	12.116	44.737	1.00	40.38
20705	CB	SER	D	323	-119.042	10.760	44.517	1.00	40.42
20706	OG	SER	D	323	-118.401	10.332	45.706	1.00	41.01
20707	C	SER	D	323	-118.757	13.073	45.407	1.00	39.86
20708	O	SER	D	323	-117.988	13.763	44.747	1.00	39.03
20709	N	THR	D	324	-118.806	13.115	46.728	1.00	39.80
20710	CA	THR	D	324	-117.933	13.991	47.480	1.00	39.64
20711	CB	THR	D	324	-118.738	14.687	48.567	1.00	40.55
20712	OG1	THR	D	324	-119.514	13.702	49.269	1.00	41.35
20713	CG2	THR	D	324	-119.809	15.607	47.921	1.00	41.21
20714	C	THR	D	324	-116.840	13.185	48.123	1.00	38.69
20715	O	THR	D	324	-115.885	13.748	48.634	1.00	39.17
20716	N	THR	D	325	-116.988	11.865	48.113	1.00	37.53
20717	CA	THR	D	325	-115.999	10.993	48.729	1.00	36.20
20718	CB	THR	D	325	-116.679	9.974	49.665	1.00	36.26
20719	OG1	THR	D	325	-117.738	9.296	48.968	1.00	34.46
20720	CG2	THR	D	325	-117.390	10.688	50.802	1.00	36.13
20721	C	THR	D	325	-115.165	10.236	47.708	1.00	35.74
20722	O	THR	D	325	-114.194	9.591	48.069	1.00	35.67
20723	N	GLY	D	326	-115.542	10.292	46.436	1.00	34.80
20724	CA	GLY	D	326	-114.782	9.552	45.447	1.00	34.05
20725	C	GLY	D	326	-115.213	9.764	44.014	1.00	33.13
20726	O	GLY	D	326	-115.473	10.883	43.595	1.00	33.76
20727	N	TRP	D	327	-115.278	8.686	43.253	1.00	32.05
20728	CA	TRP	D	327	-115.703	8.779	41.856	1.00	31.00
20729	CB	TRP	D	327	-114.857	7.848	40.999	1.00	30.19
20730	CG	TRP	D	327	-114.915	6.432	41.450	1.00	28.25
20731	CD1	TRP	D	327	-115.692	5.446	40.930	1.00	26.84
20732	NE1	TRP	D	327	-115.468	4.266	41.598	1.00	27.93
20733	CE2	TRP	D	327	-114.541	4.480	42.585	1.00	26.83
20734	CD2	TRP	D	327	-114.166	5.830	42.519	1.00	27.33
20735	CE3	TRP	D	327	-113.220	6.301	43.437	1.00	27.06
20736	CZ3	TRP	D	327	-112.683	5.415	44.363	1.00	24.99
20737	CH2	TRP	D	327	-113.075	4.090	44.402	1.00	24.28
20738	CZ2	TRP	D	327	-114.006	3.601	43.525	1.00	27.40
20739	C	TRP	D	327	-117.184	8.419	41.732	1.00	30.82
20740	O	TRP	D	327	-117.816	8.040	42.716	1.00	30.21
20741	N	VAL	D	328	-117.746	8.538	40.534	1.00	30.73
20742	CA	VAL	D	328	-119.154	8.176	40.359	1.00	30.65
20743	CB	VAL	D	328	-119.951	9.245	39.588	1.00	31.06
20744	CG1	VAL	D	328	-119.170	9.744	38.408	1.00	32.04
20745	CG2	VAL	D	328	-121.314	8.693	39.146	1.00	31.44
20746	C	VAL	D	328	-119.312	6.813	39.711	1.00	30.16
20747	O	VAL	D	328	-118.665	6.510	38.732	1.00	30.08

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**FIGURE 3 (QS)**

A	B	C	D	E	F	G	H	I	J
20748	N	GLY	D	329	-120.186	5.987	40.274	1.00	30.55
20749	CA	GLY	D	329	-120.400	4.643	39.775	1.00	30.09
20750	C	GLY	D	329	-119.382	3.717	40.402	1.00	29.88
20751	O	GLY	D	329	-118.482	4.163	41.079	1.00	29.62
20752	N	ARG	D	330	-119.529	2.421	40.190	1.00	30.44
20753	CA	ARG	D	330	-118.546	1.486	40.709	1.00	31.33
20754	CB	ARG	D	330	-119.112	0.062	40.728	1.00	31.52
20755	CG	ARG	D	330	-120.301	-0.028	41.688	1.00	34.59
20756	CD	ARG	D	330	-120.522	-1.386	42.369	1.00	36.97
20757	NE	ARG	D	330	-121.713	-1.953	41.798	1.00	40.76
20758	CZ	ARG	D	330	-122.793	-2.312	42.475	1.00	40.18
20759	NH1	ARG	D	330	-123.830	-2.786	41.799	1.00	40.28
20760	NH2	ARG	D	330	-122.828	-2.238	43.798	1.00	37.97
20761	C	ARG	D	330	-117.284	1.636	39.864	1.00	31.13
20762	O	ARG	D	330	-116.205	1.879	40.394	1.00	30.90
20763	N	PHE	D	331	-117.454	1.558	38.548	1.00	31.06
20764	CA	PHE	D	331	-116.374	1.766	37.602	1.00	31.27
20765	CB	PHE	D	331	-116.087	0.487	36.823	1.00	30.73
20766	CG	PHE	D	331	-115.403	-0.544	37.647	1.00	29.04
20767	CD1	PHE	D	331	-114.038	-0.506	37.807	1.00	26.39
20768	CE1	PHE	D	331	-113.394	-1.437	38.585	1.00	26.15
20769	CZ	PHE	D	331	-114.124	-2.394	39.256	1.00	24.63
20770	CE2	PHE	D	331	-115.499	-2.430	39.114	1.00	26.77
20771	CD2	PHE	D	331	-116.132	-1.501	38.324	1.00	26.70
20772	C	PHE	D	331	-116.749	2.890	36.664	1.00	32.13
20773	O	PHE	D	331	-115.879	3.477	36.007	1.00	31.91
20774	N	ARG	D	332	-118.054	3.171	36.627	1.00	32.56
20775	CA	ARG	D	332	-118.651	4.236	35.823	1.00	33.59
20776	CB	ARG	D	332	-118.594	3.913	34.328	1.00	33.84
20777	CG	ARG	D	332	-119.441	2.731	33.895	1.00	35.39
20778	CD	ARG	D	332	-119.112	2.215	32.492	1.00	40.50
20779	NE	ARG	D	332	-118.171	1.088	32.510	1.00	44.31
20780	CZ	ARG	D	332	-116.870	1.169	32.764	1.00	44.10
20781	NH1	ARG	D	332	-116.299	2.332	33.022	1.00	44.56
20782	NH2	ARG	D	332	-116.135	0.069	32.762	1.00	45.36
20783	C	ARG	D	332	-120.109	4.435	36.233	1.00	34.05
20784	O	ARG	D	332	-120.723	3.563	36.855	1.00	33.55
20785	N	PRO	D	333	-120.662	5.598	35.912	1.00	34.68
20786	CA	PRO	D	333	-122.069	5.862	36.203	1.00	34.94
20787	CB	PRO	D	333	-122.335	7.136	35.409	1.00	35.03
20788	CG	PRO	D	333	-121.037	7.855	35.513	1.00	34.75
20789	CD	PRO	D	333	-119.997	6.769	35.314	1.00	34.69
20790	C	PRO	D	333	-122.946	4.706	35.747	1.00	35.45
20791	O	PRO	D	333	-122.688	4.066	34.737	1.00	35.18
20792	N	SER	D	334	-123.960	4.403	36.539	1.00	36.54
20793	CA	SER	D	334	-124.877	3.333	36.206	1.00	37.66
20794	CB	SER	D	334	-125.754	2.999	37.404	1.00	37.96
20795	OG	SER	D	334	-126.055	1.611	37.410	1.00	40.76
20796	C	SER	D	334	-125.771	3.720	35.025	1.00	38.00
20797	O	SER	D	334	-125.977	4.901	34.737	1.00	37.76
20798	N	GLU	D	335	-126.302	2.711	34.354	1.00	38.11

**REPLACEMENT SHEET**  
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**FIGURE 3 QT**

A	B	C	D	E	F	G	H	I	J
20799	CA	GLU	D	335	-127.172	2.939	33.225	1.00	38.83
20800	CB	GLU	D	335	-126.944	1.848	32.169	1.00	39.12
20801	CG	GLU	D	335	-127.591	0.498	32.460	1.00	39.81
20802	CD	GLU	D	335	-126.907	-0.270	33.582	1.00	42.25
20803	OE1	GLU	D	335	-125.751	0.067	33.959	1.00	42.39
20804	OE2	GLU	D	335	-127.537	-1.220	34.092	1.00	42.00
20805	C	GLU	D	335	-128.647	2.999	33.649	1.00	39.02
20806	O	GLU	D	335	-129.097	2.264	34.537	1.00	38.91
20807	N	PRO	D	336	-129.416	3.857	32.996	1.00	39.27
20808	CA	PRO	D	336	-130.832	4.004	33.339	1.00	39.37
20809	CB	PRO	D	336	-131.230	5.306	32.641	1.00	39.23
20810	CG	PRO	D	336	-130.280	5.445	31.511	1.00	39.21
20811	CD	PRO	D	336	-129.014	4.724	31.878	1.00	39.11
20812	C	PRO	D	336	-131.668	2.885	32.775	1.00	39.43
20813	O	PRO	D	336	-131.364	2.369	31.712	1.00	39.27
20814	N	HIS	D	337	-132.711	2.509	33.505	1.00	40.02
20815	CA	HIS	D	337	-133.705	1.581	33.002	1.00	40.01
20816	CB	HIS	D	337	-133.788	0.347	33.889	1.00	39.87
20817	CG	HIS	D	337	-132.543	-0.481	33.843	1.00	39.02
20818	ND1	HIS	D	337	-132.445	-1.640	33.106	1.00	38.52
20819	CE1	HIS	D	337	-131.227	-2.136	33.223	1.00	36.68
20820	NE2	HIS	D	337	-130.525	-1.329	33.992	1.00	36.50
20821	CD2	HIS	D	337	-131.320	-0.279	34.385	1.00	37.62
20822	C	HIS	D	337	-135.009	2.353	32.920	1.00	40.66
20823	O	HIS	D	337	-135.621	2.685	33.935	1.00	41.07
20824	N	PHE	D	338	-135.405	2.675	31.693	1.00	41.13
20825	CA	PHE	D	338	-136.603	3.464	31.431	1.00	41.27
20826	CB	PHE	D	338	-136.482	4.185	30.079	1.00	40.88
20827	CG	PHE	D	338	-135.505	5.331	30.083	1.00	39.25
20828	CD1	PHE	D	338	-134.185	5.135	29.723	1.00	36.83
20829	CE1	PHE	D	338	-133.297	6.175	29.725	1.00	35.88
20830	CZ	PHE	D	338	-133.709	7.434	30.093	1.00	37.30
20831	CE2	PHE	D	338	-135.023	7.652	30.441	1.00	37.67
20832	CD2	PHE	D	338	-135.915	6.602	30.432	1.00	38.38
20833	C	PHE	D	338	-137.887	2.653	31.436	1.00	42.05
20834	O	PHE	D	338	-137.921	1.475	31.058	1.00	42.03
20835	N	THR	D	339	-138.956	3.301	31.872	1.00	43.22
20836	CA	THR	D	339	-140.281	2.714	31.779	1.00	44.21
20837	CB	THR	D	339	-141.266	3.557	32.566	1.00	44.18
20838	CG1	THR	D	339	-140.957	4.942	32.356	1.00	45.08
20839	CG2	THR	D	339	-141.018	3.391	34.056	1.00	44.83
20840	C	THR	D	339	-140.621	2.769	30.300	1.00	44.64
20841	O	THR	D	339	-140.049	3.565	29.565	1.00	44.48
20842	N	LEU	D	340	-141.544	1.929	29.859	1.00	45.84
20843	CA	LEU	D	340	-141.910	1.885	28.451	1.00	46.69
20844	CB	LEU	D	340	-143.196	1.089	28.250	1.00	46.97
20845	CG	LEU	D	340	-143.203	0.251	26.964	1.00	48.22
20846	CD1	LEU	D	340	-142.944	-1.233	27.257	1.00	49.71
20847	CD2	LEU	D	340	-142.182	0.783	25.975	1.00	47.97
20848	C	LEU	D	340	-142.050	3.280	27.841	1.00	46.96
20849	O	LEU	D	340	-141.341	3.626	26.890	1.00	47.27

**REPLACEMENT SHEET**  
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**FIGURE 3 QU**

A	B	C	D	E	F	G	H	I	J
20850	N	ASP	D	341	-142.942	4.086	28.402	1.00	47.11
20851	CA	ASP	D	341	-143.190	5.430	27.884	1.00	47.34
20852	CB	ASP	D	341	-144.350	6.100	28.632	1.00	47.48
20853	CG	ASP	D	341	-144.042	6.333	30.099	1.00	49.18
20854	OD1	ASP	D	341	-145.000	6.577	30.873	1.00	49.68
20855	OD2	ASP	D	341	-142.878	6.292	30.570	1.00	50.47
20856	C	ASP	D	341	-141.972	6.331	27.952	1.00	46.95
20857	O	ASP	D	341	-141.967	7.411	27.368	1.00	47.08
20858	N	GLY	D	342	-140.960	5.910	28.701	1.00	46.48
20859	CA	GLY	D	342	-139.740	6.683	28.824	1.00	45.70
20860	C	GLY	D	342	-139.868	7.998	29.566	1.00	45.41
20861	O	GLY	D	342	-139.019	8.880	29.432	1.00	45.37
20862	N	ASN	D	343	-140.917	8.159	30.360	1.00	45.22
20863	CA	ASN	D	343	-141.043	9.411	31.106	1.00	44.83
20864	CB	ASN	D	343	-142.503	9.846	31.210	1.00	45.19
20865	CG	ASN	D	343	-143.140	10.063	29.847	1.00	46.90
20866	OD1	ASN	D	343	-142.536	10.666	28.960	1.00	48.47
20867	ND2	ASN	D	343	-144.363	9.564	29.671	1.00	48.14
20868	C	ASN	D	343	-140.353	9.333	32.477	1.00	43.86
20869	O	ASN	D	343	-140.230	10.321	33.204	1.00	43.78
20870	N	SER	D	344	-139.891	8.149	32.827	1.00	42.61
20871	CA	SER	D	344	-139.156	8.011	34.070	1.00	42.35
20872	CB	SER	D	344	-140.093	7.952	35.291	1.00	41.77
20873	OG	SER	D	344	-141.020	6.891	35.185	1.00	42.32
20874	C	SER	D	344	-138.243	6.800	33.961	1.00	41.77
20875	O	SER	D	344	-138.322	6.038	32.991	1.00	41.99
20876	N	PHE	D	345	-137.370	6.627	34.945	1.00	41.31
20877	CA	PHE	D	345	-136.408	5.538	34.893	1.00	40.19
20878	CB	PHE	D	345	-135.244	5.900	33.964	1.00	39.91
20879	CG	PHE	D	345	-134.382	7.017	34.473	1.00	38.04
20880	CD1	PHE	D	345	-133.315	6.760	35.316	1.00	37.16
20881	CE1	PHE	D	345	-132.519	7.787	35.775	1.00	36.17
20882	CZ	PHE	D	345	-132.778	9.077	35.392	1.00	34.87
20883	CE2	PHE	D	345	-133.830	9.339	34.545	1.00	35.78
20884	CD2	PHE	D	345	-134.622	8.319	34.092	1.00	35.52
20885	C	PHE	D	345	-135.865	5.134	36.247	1.00	40.24
20886	O	PHE	D	345	-136.029	5.839	37.247	1.00	39.97
20887	N	TYR	D	346	-135.213	3.974	36.246	1.00	40.03
20888	CA	TYR	D	346	-134.591	3.418	37.413	1.00	40.01
20889	CB	TYR	D	346	-135.129	2.016	37.656	1.00	40.29
20890	CG	TYR	D	346	-136.615	1.958	37.902	1.00	41.07
20891	CD1	TYR	D	346	-137.119	2.044	39.184	1.00	39.92
20892	CE1	TYR	D	346	-138.467	1.984	39.418	1.00	42.29
20893	CZ	TYR	D	346	-139.342	1.837	38.364	1.00	43.21
20894	OH	TYR	D	346	-140.693	1.778	38.616	1.00	42.09
20895	CE2	TYR	D	346	-138.865	1.752	37.065	1.00	42.81
20896	CD2	TYR	D	346	-137.511	1.809	36.844	1.00	41.55
20897	C	TYR	D	346	-133.087	3.327	37.186	1.00	40.23
20898	O	TYR	D	346	-132.629	3.013	36.074	1.00	39.81
20899	N	LYS	D	347	-132.318	3.632	38.226	1.00	39.63
20900	CA	LYS	D	347	-130.878	3.421	38.167	1.00	39.76

**REPLACEMENT SHEET**  
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**FIGURE 3 QV**

A	B	C	D	E	F	G	H	I	J
20901	CB	LYS	D	347	-130.147	4.386	37.211	1.00	39.79
20902	CG	LYS	D	347	-129.986	5.789	37.683	1.00	39.95
20903	CD	LYS	D	347	-128.535	6.088	37.930	1.00	41.81
20904	CE	LYS	D	347	-127.839	6.780	36.751	1.00	40.24
20905	NZ	LYS	D	347	-126.343	6.794	36.995	1.00	37.48
20906	C	LYS	D	347	-130.264	3.386	39.556	1.00	39.41
20907	O	LYS	D	347	-130.791	3.966	40.510	1.00	39.41
20908	N	ILE	D	348	-129.164	2.658	39.647	1.00	38.65
20909	CA	ILE	D	348	-128.466	2.465	40.888	1.00	38.14
20910	CB	ILE	D	348	-127.664	1.167	40.798	1.00	37.90
20911	CG1	ILE	D	348	-128.572	0.058	40.260	1.00	36.13
20912	CD1	ILE	D	348	-127.878	-1.248	40.028	1.00	34.90
20913	CG2	ILE	D	348	-127.068	0.819	42.155	1.00	37.06
20914	C	ILE	D	348	-127.538	3.621	41.156	1.00	38.53
20915	O	ILE	D	348	-126.674	3.938	40.337	1.00	39.14
20916	N	ILE	D	349	-127.734	4.257	42.302	1.00	38.29
20917	CA	ILE	D	349	-126.870	5.317	42.759	1.00	37.95
20918	CB	ILE	D	349	-127.530	6.679	42.605	1.00	38.25
20919	CG1	ILE	D	349	-128.665	6.828	43.609	1.00	38.68
20920	CD1	ILE	D	349	-129.020	8.269	43.923	1.00	39.44
20921	CG2	ILE	D	349	-128.003	6.898	41.177	1.00	38.73
20922	C	ILE	D	349	-126.587	5.053	44.229	1.00	37.73
20923	O	ILE	D	349	-127.292	4.278	44.876	1.00	37.75
20924	N	SER	D	350	-125.536	5.671	44.747	1.00	37.22
20925	CA	SER	D	350	-125.188	5.486	46.133	1.00	37.43
20926	CB	SER	D	350	-123.757	5.952	46.391	1.00	37.24
20927	OG	SER	D	350	-123.712	7.367	46.324	1.00	39.73
20928	C	SER	D	350	-126.163	6.328	46.922	1.00	36.70
20929	O	SER	D	350	-126.408	7.479	46.562	1.00	36.34
20930	N	ASN	D	351	-126.743	5.757	47.975	1.00	36.35
20931	CA	ASN	D	351	-127.699	6.523	48.782	1.00	36.49
20932	CB	ASN	D	351	-128.791	5.650	49.423	1.00	35.93
20933	CG	ASN	D	351	-128.255	4.665	50.461	1.00	36.10
20934	OD1	ASN	D	351	-127.105	4.750	50.903	1.00	35.57
20935	ND2	ASN	D	351	-129.109	3.725	50.866	1.00	33.75
20936	C	ASN	D	351	-127.004	7.410	49.798	1.00	36.80
20937	O	ASN	D	351	-125.790	7.622	49.724	1.00	36.43
20938	N	GLU	D	352	-127.775	7.933	50.736	1.00	37.42
20939	CA	GLU	D	352	-127.230	8.849	51.720	1.00	38.62
20940	CB	GLU	D	352	-128.349	9.455	52.568	1.00	39.24
20941	CG	GLU	D	352	-128.946	8.502	53.600	1.00	42.95
20942	CD	GLU	D	352	-129.651	7.298	52.982	1.00	47.08
20943	OE1	GLU	D	352	-129.544	6.204	53.585	1.00	47.83
20944	OE2	GLU	D	352	-130.318	7.442	51.911	1.00	48.18
20945	C	GLU	D	352	-126.189	8.181	52.612	1.00	38.18
20946	O	GLU	D	352	-125.279	8.840	53.104	1.00	38.32
20947	N	GLU	D	353	-126.310	6.871	52.795	1.00	37.68
20948	CA	GLU	D	353	-125.397	6.154	53.658	1.00	37.20
20949	CB	GLU	D	353	-126.138	5.092	54.501	1.00	37.96
20950	CG	GLU	D	353	-127.264	4.362	53.789	1.00	41.29
20951	CD	GLU	D	353	-127.688	3.060	54.474	1.00	46.35



**REPLACEMENT SHEET**  
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**FIGURE 3 QW**

A	B	C	D	E	F	G	H	I	J
20952	OE1	GLU	D	353	-127.325	2.860	55.670	1.00	47.37
20953	OE2	GLU	D	353	-128.383	2.232	53.808	1.00	46.05
20954	C	GLU	D	353	-124.210	5.553	52.892	1.00	36.18
20955	O	GLU	D	353	-123.335	4.912	53.489	1.00	35.36
20956	N	GLY	D	354	-124.186	5.770	51.577	1.00	35.03
20957	CA	GLY	D	354	-123.124	5.260	50.724	1.00	33.33
20958	C	GLY	D	354	-123.372	3.874	50.161	1.00	32.88
20959	O	GLY	D	354	-122.454	3.244	49.633	1.00	32.29
20960	N	TYR	D	355	-124.602	3.380	50.283	1.00	32.37
20961	CA	TYR	D	355	-124.930	2.069	49.739	1.00	32.40
20962	CB	TYR	D	355	-125.689	1.188	50.740	1.00	32.12
20963	CG	TYR	D	355	-124.851	0.734	51.906	1.00	32.12
20964	CD1	TYR	D	355	-124.691	1.537	53.026	1.00	31.66
20965	CE1	TYR	D	355	-123.924	1.128	54.105	1.00	31.91
20966	CZ	TYR	D	355	-123.299	-0.102	54.070	1.00	34.47
20967	OH	TYR	D	355	-122.525	-0.514	55.145	1.00	35.16
20968	CE2	TYR	D	355	-123.449	-0.929	52.966	1.00	33.95
20969	CD2	TYR	D	355	-124.219	-0.504	51.890	1.00	33.48
20970	C	TYR	D	355	-125.719	2.231	48.453	1.00	32.36
20971	O	TYR	D	355	-126.611	3.074	48.355	1.00	32.46
20972	N	ARG	D	356	-125.366	1.415	47.468	1.00	32.22
20973	CA	ARG	D	356	-125.976	1.480	46.145	1.00	32.23
20974	CB	ARG	D	356	-124.989	0.944	45.094	1.00	32.13
20975	CG	ARG	D	356	-123.887	1.975	44.815	1.00	32.43
20976	CD	ARG	D	356	-122.617	1.473	44.134	1.00	32.47
20977	NE	ARG	D	356	-121.497	2.343	44.491	1.00	31.76
20978	CZ	ARG	D	356	-121.250	3.533	43.940	1.00	30.21
20979	NH1	ARG	D	356	-122.022	4.006	42.967	1.00	29.24
20980	NH2	ARG	D	356	-120.218	4.249	44.363	1.00	29.43
20981	C	ARG	D	356	-127.349	0.811	46.066	1.00	31.78
20982	O	ARG	D	356	-127.493	-0.386	46.273	1.00	31.54
20983	N	HIS	D	357	-128.357	1.612	45.760	1.00	31.98
20984	CA	HIS	D	357	-129.733	1.128	45.714	1.00	31.67
20985	CB	HIS	D	357	-130.457	1.465	47.018	1.00	30.76
20986	CG	HIS	D	357	-130.002	0.621	48.158	1.00	29.54
20987	ND1	HIS	D	357	-130.369	-0.697	48.287	1.00	26.68
20988	CE1	HIS	D	357	-129.787	-1.209	49.355	1.00	26.99
20989	NE2	HIS	D	357	-129.026	-0.278	49.901	1.00	27.44
20990	CD2	HIS	D	357	-129.133	0.873	49.166	1.00	27.84
20991	C	HIS	D	357	-130.501	1.658	44.520	1.00	31.96
20992	O	HIS	D	357	-130.075	2.603	43.875	1.00	31.35
20993	N	ILE	D	358	-131.623	1.017	44.224	1.00	33.06
20994	CA	ILE	D	358	-132.426	1.430	43.096	1.00	34.50
20995	CB	ILE	D	358	-133.421	0.356	42.695	1.00	34.42
20996	CG1	ILE	D	358	-132.706	-0.982	42.472	1.00	34.74
20997	CD1	ILE	D	358	-133.628	-2.206	42.569	1.00	34.80
20998	CG2	ILE	D	358	-134.182	0.824	41.448	1.00	33.43
20999	C	ILE	D	358	-133.176	2.708	43.417	1.00	35.42
21000	O	ILE	D	358	-133.907	2.791	44.408	1.00	34.47
21001	N	CYS	D	359	-132.985	3.707	42.569	1.00	36.85
21002	CA	CYS	D	359	-133.674	4.960	42.762	1.00	38.92

**REPLACEMENT SHEET**  
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**FIGURE 3 QX**

A	B	C	D	E	F	G	H	I	J
21003	CB	CYS	D	359	-132.691	6.097	43.006	1.00	39.01
21004	SG	CYS	D	359	-133.467	7.398	43.960	1.00	43.67
21005	C	CYS	D	359	-134.542	5.238	41.548	1.00	39.33
21006	O	CYS	D	359	-134.168	4.922	40.421	1.00	39.71
21007	N	TYR	D	360	-135.709	5.816	41.787	1.00	40.18
21008	CA	TYR	D	360	-136.653	6.101	40.725	1.00	41.13
21009	CB	TYR	D	360	-138.042	5.660	41.159	1.00	41.22
21010	CG	TYR	D	360	-139.166	6.012	40.211	1.00	40.71
21011	CD1	TYR	D	360	-140.043	7.046	40.504	1.00	41.69
21012	CE1	TYR	D	360	-141.079	7.362	39.658	1.00	41.04
21013	CZ	TYR	D	360	-141.259	6.625	38.509	1.00	41.55
21014	OH	TYR	D	360	-142.305	6.928	37.670	1.00	43.38
21015	CE2	TYR	D	360	-140.409	5.590	38.197	1.00	40.33
21016	CD2	TYR	D	360	-139.372	5.288	39.048	1.00	40.26
21017	C	TYR	D	360	-136.644	7.585	40.394	1.00	41.84
21018	O	TYR	D	360	-136.754	8.425	41.275	1.00	41.85
21019	N	PHE	D	361	-136.485	7.897	39.116	1.00	42.94
21020	CA	PHE	D	361	-136.450	9.275	38.665	1.00	43.88
21021	CB	PHE	D	361	-135.155	9.578	37.894	1.00	43.94
21022	CG	PHE	D	361	-133.895	9.448	38.703	1.00	43.65
21023	CD1	PHE	D	361	-133.156	10.578	39.038	1.00	43.59
21024	CE1	PHE	D	361	-131.985	10.466	39.784	1.00	43.67
21025	CZ	PHE	D	361	-131.534	9.222	40.177	1.00	42.46
21026	CE2	PHE	D	361	-132.258	8.088	39.839	1.00	43.24
21027	CD2	PHE	D	361	-133.429	8.204	39.101	1.00	42.70
21028	C	PHE	D	361	-137.572	9.475	37.679	1.00	44.95
21029	O	PHE	D	361	-137.972	8.539	36.977	1.00	44.82
21030	N	GLN	D	362	-138.062	10.708	37.620	1.00	46.06
21031	CA	GLN	D	362	-139.001	11.116	36.594	1.00	47.40
21032	CB	GLN	D	362	-140.239	11.791	37.189	1.00	47.36
21033	CG	GLN	D	362	-141.040	10.943	38.162	1.00	48.74
21034	CD	GLN	D	362	-142.243	11.700	38.711	1.00	51.25
21035	OE1	GLN	D	362	-143.331	11.614	38.153	1.00	53.12
21036	NE2	GLN	D	362	-142.042	12.461	39.783	1.00	51.45
21037	C	GLN	D	362	-138.242	12.105	35.715	1.00	48.00
21038	O	GLN	D	362	-137.580	13.015	36.215	1.00	47.59
21039	N	ILE	D	363	-138.328	11.903	34.408	1.00	49.43
21040	CA	ILE	D	363	-137.646	12.751	33.437	1.00	50.89
21041	CB	ILE	D	363	-138.367	12.644	32.077	1.00	50.91
21042	CG1	ILE	D	363	-138.066	11.290	31.444	1.00	51.01
21043	CD1	ILE	D	363	-136.852	10.613	32.006	1.00	49.39
21044	CG2	ILE	D	363	-137.957	13.739	31.136	1.00	51.62
21045	C	ILE	D	363	-137.547	14.203	33.890	1.00	51.81
21046	O	ILE	D	363	-136.458	14.781	33.911	1.00	51.94
21047	N	ASP	D	364	-138.676	14.776	34.295	1.00	53.26
21048	CA	ASP	D	364	-138.744	16.195	34.652	1.00	54.63
21049	CB	ASP	D	364	-140.059	16.794	34.133	1.00	55.08
21050	CG	ASP	D	364	-139.984	17.194	32.661	1.00	57.13
21051	OD1	ASP	D	364	-139.101	18.014	32.315	1.00	58.88
21052	OD2	ASP	D	364	-140.764	16.755	31.780	1.00	57.86
21053	C	ASP	D	364	-138.566	16.573	36.132	1.00	55.15

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**FIGURE 3 QY**

A	B	C	D	E	F	G	H	I	J
21054	O	ASP	D	364	-138.963	17.669	36.535	1.00	55.15
21055	N	LYS	D	365	-137.984	15.697	36.948	1.00	55.72
21056	CA	LYS	D	365	-137.769	16.058	38.353	1.00	56.38
21057	CB	LYS	D	365	-138.896	15.533	39.259	1.00	56.83
21058	CG	LYS	D	365	-138.517	14.404	40.224	1.00	58.36
21059	CD	LYS	D	365	-139.686	14.082	41.174	1.00	60.14
21060	CE	LYS	D	365	-139.278	13.174	42.340	1.00	60.85
21061	NZ	LYS	D	365	-138.816	11.802	41.920	1.00	60.80
21062	C	LYS	D	365	-136.390	15.655	38.866	1.00	56.32
21063	O	LYS	D	365	-135.920	14.538	38.636	1.00	56.59
21064	N	LYS	D	366	-135.741	16.576	39.562	1.00	56.14
21065	CA	LYS	D	366	-134.393	16.336	40.054	1.00	55.94
21066	CB	LYS	D	366	-133.793	17.628	40.616	1.00	56.24
21067	CG	LYS	D	366	-134.448	18.115	41.896	1.00	57.54
21068	CD	LYS	D	366	-133.819	19.422	42.372	1.00	59.43
21069	CE	LYS	D	366	-134.168	19.709	43.827	1.00	60.48
21070	NZ	LYS	D	366	-135.641	19.679	44.075	1.00	60.65
21071	C	LYS	D	366	-134.320	15.228	41.103	1.00	55.23
21072	O	LYS	D	366	-133.440	14.363	41.050	1.00	55.28
21073	N	ASP	D	367	-135.246	15.241	42.051	1.00	54.04
21074	CA	ASP	D	367	-135.168	14.285	43.143	1.00	52.89
21075	CB	ASP	D	367	-135.850	14.821	44.396	1.00	53.20
21076	CG	ASP	D	367	-134.996	15.825	45.113	1.00	55.19
21077	OD1	ASP	D	367	-135.382	17.009	45.151	1.00	58.14
21078	OD2	ASP	D	367	-133.909	15.526	45.658	1.00	58.60
21079	C	ASP	D	367	-135.706	12.930	42.762	1.00	51.23
21080	O	ASP	D	367	-136.645	12.824	41.994	1.00	51.45
21081	N	CYS	D	368	-135.092	11.892	43.307	1.00	49.15
21082	CA	CYS	D	368	-135.492	10.543	42.984	1.00	47.27
21083	CB	CYS	D	368	-134.342	9.810	42.294	1.00	46.98
21084	SG	CYS	D	368	-133.021	9.288	43.413	1.00	45.43
21085	C	CYS	D	368	-135.843	9.847	44.277	1.00	46.24
21086	O	CYS	D	368	-135.321	10.190	45.330	1.00	46.58
21087	N	THR	D	369	-136.728	8.870	44.223	1.00	44.70
21088	CA	THR	D	369	-137.032	8.175	45.449	1.00	43.62
21089	CB	THR	D	369	-138.550	8.155	45.725	1.00	43.82
21090	OG1	THR	D	369	-139.124	6.964	45.188	1.00	44.95
21091	CG2	THR	D	369	-139.239	9.272	44.967	1.00	43.26
21092	C	THR	D	369	-136.434	6.778	45.429	1.00	42.15
21093	O	THR	D	369	-136.496	6.065	44.427	1.00	41.55
21094	N	PHE	D	370	-135.820	6.406	46.539	1.00	40.33
21095	CA	PHE	D	370	-135.249	5.084	46.648	1.00	39.06
21096	CB	PHE	D	370	-134.193	5.065	47.736	1.00	39.01
21097	CG	PHE	D	370	-132.869	5.591	47.284	1.00	38.24
21098	CD1	PHE	D	370	-132.082	4.851	46.425	1.00	36.86
21099	CE1	PHE	D	370	-130.850	5.339	46.006	1.00	38.06
21100	CZ	PHE	D	370	-130.416	6.581	46.447	1.00	38.00
21101	CE2	PHE	D	370	-131.208	7.329	47.288	1.00	37.11
21102	CD2	PHE	D	370	-132.423	6.833	47.705	1.00	36.95
21103	C	PHE	D	370	-136.321	4.045	46.931	1.00	38.31
21104	O	PHE	D	370	-137.207	4.276	47.764	1.00	38.16

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**FIGURE 3 QZ**

A	B	C	D	E	F	G	H	I	J
21105	N	ILE	D	371	-136.240	2.917	46.230	1.00	37.20
21106	CA	ILE	D	371	-137.180	1.816	46.422	1.00	36.77
21107	CB	ILE	D	371	-137.987	1.519	45.138	1.00	37.01
21108	CG1	ILE	D	371	-137.074	1.012	44.018	1.00	35.43
21109	CD1	ILE	D	371	-137.820	0.462	42.837	1.00	36.70
21110	CG2	ILE	D	371	-138.800	2.760	44.735	1.00	36.00
21111	C	ILE	D	371	-136.523	0.547	46.981	1.00	36.79
21112	O	ILE	D	371	-137.205	-0.458	47.188	1.00	36.99
21113	N	THR	D	372	-135.201	0.598	47.178	1.00	36.34
21114	CA	THR	D	372	-134.463	-0.395	47.972	1.00	36.04
21115	CB	THR	D	372	-133.588	-1.382	47.132	1.00	36.42
21116	OG1	THR	D	372	-132.577	-0.668	46.400	1.00	35.44
21117	CG2	THR	D	372	-134.422	-2.105	46.067	1.00	35.39
21118	C	THR	D	372	-133.574	0.376	48.943	1.00	35.99
21119	O	THR	D	372	-133.235	1.539	48.698	1.00	36.01
21120	N	LYS	D	373	-133.232	-0.251	50.062	1.00	35.71
21121	CA	LYS	D	373	-132.320	0.342	51.037	1.00	35.84
21122	CB	LYS	D	373	-132.988	1.458	51.828	1.00	36.44
21123	CG	LYS	D	373	-134.476	1.226	52.094	1.00	38.82
21124	CD	LYS	D	373	-134.836	1.498	53.548	1.00	41.22
21125	CE	LYS	D	373	-134.428	2.895	53.983	1.00	43.73
21126	NZ	LYS	D	373	-134.720	3.181	55.429	1.00	45.05
21127	C	LYS	D	373	-131.843	-0.723	51.984	1.00	35.25
21128	O	LYS	D	373	-132.353	-1.838	51.978	1.00	35.89
21129	N	GLY	D	374	-130.876	-0.374	52.819	1.00	34.90
21130	CA	GLY	D	374	-130.309	-1.310	53.769	1.00	33.91
21131	C	GLY	D	374	-128.803	-1.356	53.581	1.00	33.63
21132	O	GLY	D	374	-128.269	-0.778	52.634	1.00	33.52
21133	N	THR	D	375	-128.109	-2.039	54.480	1.00	33.26
21134	CA	THR	D	375	-126.653	-2.159	54.384	1.00	32.63
21135	CB	THR	D	375	-126.040	-2.305	55.781	1.00	32.98
21136	OG1	THR	D	375	-126.429	-3.572	56.321	1.00	34.19
21137	CG2	THR	D	375	-126.673	-1.306	56.754	1.00	32.80
21138	C	THR	D	375	-126.245	-3.349	53.518	1.00	31.50
21139	O	THR	D	375	-125.699	-4.329	54.010	1.00	31.37
21140	N	TRP	D	376	-126.510	-3.236	52.225	1.00	30.27
21141	CA	TRP	D	376	-126.162	-4.251	51.237	1.00	29.82
21142	CB	TRP	D	376	-127.086	-5.479	51.284	1.00	29.57
21143	CG	TRP	D	376	-128.550	-5.157	51.340	1.00	29.97
21144	CD1	TRP	D	376	-129.298	-4.950	52.460	1.00	31.52
21145	NE1	TRP	D	376	-130.600	-4.668	52.117	1.00	33.29
21146	CE2	TRP	D	376	-130.715	-4.688	50.753	1.00	31.81
21147	CD2	TRP	D	376	-129.441	-4.988	50.229	1.00	31.04
21148	CE3	TRP	D	376	-129.295	-5.079	48.836	1.00	30.24
21149	CZ3	TRP	D	376	-130.386	-4.847	48.034	1.00	30.33
21150	CH2	TRP	D	376	-131.652	-4.560	48.586	1.00	31.76
21151	CZ2	TRP	D	376	-131.833	-4.473	49.938	1.00	32.25
21152	C	TRP	D	376	-126.329	-3.507	49.933	1.00	29.40
21153	O	TRP	D	376	-126.797	-2.374	49.941	1.00	28.79
21154	N	GLU	D	377	-125.952	-4.118	48.816	1.00	29.03
21155	CA	GLU	D	377	-126.019	-3.384	47.549	1.00	28.80

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**FIGURE 3 RA**

A	B	C	D	E	F	G	H	I	J
21156	CB	GLU	D	377	-124.599	-2.991	47.099	1.00	28.09
21157	CG	GLU	D	377	-123.911	-2.015	48.046	1.00	27.76
21158	CD	GLU	D	377	-122.815	-1.214	47.377	1.00	28.36
21159	OE1	GLU	D	377	-122.572	-0.067	47.780	1.00	29.76
21160	OE2	GLU	D	377	-122.193	-1.719	46.434	1.00	30.38
21161	C	GLU	D	377	-126.736	-4.089	46.404	1.00	28.45
21162	O	GLU	D	377	-126.595	-5.289	46.214	1.00	28.24
21163	N	VAL	D	378	-127.495	-3.331	45.626	1.00	29.21
21164	CA	VAL	D	378	-128.045	-3.871	44.395	1.00	29.24
21165	CB	VAL	D	378	-129.146	-2.978	43.833	1.00	29.41
21166	CG1	VAL	D	378	-129.580	-3.458	42.426	1.00	28.44
21167	CG2	VAL	D	378	-130.343	-2.924	44.807	1.00	28.31
21168	C	VAL	D	378	-126.878	-3.964	43.422	1.00	30.44
21169	O	VAL	D	378	-126.092	-3.033	43.294	1.00	29.80
21170	N	ILE	D	379	-126.746	-5.100	42.750	1.00	32.28
21171	CA	ILE	D	379	-125.628	-5.307	41.840	1.00	33.52
21172	CB	ILE	D	379	-125.220	-6.788	41.831	1.00	33.68
21173	CG1	ILE	D	379	-124.879	-7.260	43.244	1.00	33.80
21174	CD1	ILE	D	379	-123.922	-6.369	43.973	1.00	33.48
21175	CG2	ILE	D	379	-124.049	-7.015	40.887	1.00	34.15
21176	C	ILE	D	379	-126.015	-4.856	40.445	1.00	34.25
21177	O	ILE	D	379	-125.215	-4.251	39.725	1.00	34.43
21178	N	GLY	D	380	-127.248	-5.155	40.062	1.00	34.97
21179	CA	GLY	D	380	-127.748	-4.709	38.778	1.00	36.19
21180	C	GLY	D	380	-129.244	-4.880	38.609	1.00	36.82
21181	O	GLY	D	380	-129.809	-5.825	39.117	1.00	37.70
21182	N	ILE	D	381	-129.890	-3.944	37.921	1.00	37.55
21183	CA	ILE	D	381	-131.277	-4.109	37.545	1.00	37.88
21184	CB	ILE	D	381	-131.877	-2.772	37.160	1.00	38.08
21185	CG1	ILE	D	381	-132.109	-1.923	38.413	1.00	38.21
21186	CD1	ILE	D	381	-132.224	-0.427	38.137	1.00	37.59
21187	CG2	ILE	D	381	-133.182	-2.981	36.381	1.00	36.96
21188	C	ILE	D	381	-131.256	-5.024	36.330	1.00	38.84
21189	O	ILE	D	381	-130.627	-4.711	35.317	1.00	38.87
21190	N	GLU	D	382	-131.941	-6.155	36.427	1.00	39.49
21191	CA	GLU	D	382	-131.914	-7.145	35.365	1.00	40.28
21192	CB	GLU	D	382	-131.826	-8.554	35.971	1.00	40.16
21193	CG	GLU	D	382	-130.637	-8.763	36.888	1.00	40.99
21194	CD	GLU	D	382	-129.303	-8.422	36.241	1.00	42.81
21195	OE1	GLU	D	382	-129.076	-8.797	35.068	1.00	43.56
21196	OE2	GLU	D	382	-128.479	-7.764	36.908	1.00	43.93
21197	C	GLU	D	382	-133.100	-7.061	34.407	1.00	40.86
21198	O	GLU	D	382	-132.973	-7.374	33.225	1.00	41.14
21199	N	ALA	D	383	-134.259	-6.657	34.913	1.00	41.59
21200	CA	ALA	D	383	-135.447	-6.544	34.064	1.00	41.83
21201	CB	ALA	D	383	-136.094	-7.913	33.851	1.00	41.83
21202	C	ALA	D	383	-136.479	-5.576	34.615	1.00	42.32
21203	O	ALA	D	383	-136.538	-5.296	35.826	1.00	41.93
21204	N	LEU	D	384	-137.313	-5.095	33.703	1.00	42.65
21205	CA	LEU	D	384	-138.372	-4.178	34.032	1.00	43.03
21206	CB	LEU	D	384	-137.961	-2.777	33.617	1.00	42.90

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**FIGURE 3 RB**

A	B	C	D	E	F	G	H	I	J
21207	CG	LEU	D	384	-138.924	-1.652	33.979	1.00	42.15
21208	CD1	LEU	D	384	-139.173	-1.634	35.484	1.00	41.21
21209	CD2	LEU	D	384	-138.338	-0.343	33.531	1.00	41.42
21210	C	LEU	D	384	-139.614	-4.564	33.262	1.00	43.77
21211	O	LEU	D	384	-139.553	-4.837	32.076	1.00	44.19
21212	N	THR	D	385	-140.747	-4.621	33.939	1.00	44.51
21213	CA	THR	D	385	-142.009	-4.822	33.251	1.00	44.99
21214	CB	THR	D	385	-142.612	-6.190	33.558	1.00	45.20
21215	OG1	THR	D	385	-142.895	-6.281	34.960	1.00	45.54
21216	CG2	THR	D	385	-141.596	-7.305	33.304	1.00	44.70
21217	C	THR	D	385	-142.891	-3.722	33.785	1.00	45.45
21218	O	THR	D	385	-142.424	-2.877	34.542	1.00	45.63
21219	N	SER	D	386	-144.161	-3.699	33.401	1.00	46.00
21220	CA	SER	D	386	-145.027	-2.641	33.912	1.00	46.09
21221	CB	SER	D	386	-146.253	-2.430	33.010	1.00	46.35
21222	OG	SER	D	386	-146.907	-3.659	32.748	1.00	47.43
21223	C	SER	D	386	-145.439	-2.985	35.338	1.00	45.73
21224	O	SER	D	386	-145.896	-2.118	36.083	1.00	45.55
21225	N	ASP	D	387	-145.253	-4.251	35.710	1.00	45.25
21226	CA	ASP	D	387	-145.595	-4.715	37.046	1.00	45.10
21227	CB	ASP	D	387	-146.446	-5.976	36.958	1.00	45.39
21228	CG	ASP	D	387	-147.721	-5.776	36.151	1.00	45.79
21229	OD1	ASP	D	387	-148.334	-4.682	36.233	1.00	44.47
21230	OD2	ASP	D	387	-148.181	-6.676	35.410	1.00	45.75
21231	C	ASP	D	387	-144.397	-5.010	37.960	1.00	45.22
21232	O	ASP	D	387	-144.522	-4.927	39.187	1.00	45.43
21233	N	TYR	D	388	-143.242	-5.345	37.380	1.00	44.50
21234	CA	TYR	D	388	-142.109	-5.781	38.187	1.00	43.85
21235	CB	TYR	D	388	-142.089	-7.300	38.221	1.00	44.23
21236	CG	TYR	D	388	-143.153	-7.910	39.090	1.00	46.90
21237	CD1	TYR	D	388	-144.206	-8.626	38.533	1.00	48.02
21238	CE1	TYR	D	388	-145.177	-9.190	39.331	1.00	49.82
21239	CZ	TYR	D	388	-145.108	-9.039	40.702	1.00	51.59
21240	OH	TYR	D	388	-146.076	-9.596	41.510	1.00	53.43
21241	CE2	TYR	D	388	-144.068	-8.339	41.279	1.00	50.92
21242	CD2	TYR	D	388	-143.099	-7.779	40.473	1.00	49.24
21243	C	TYR	D	388	-140.715	-5.330	37.760	1.00	42.89
21244	O	TYR	D	388	-140.366	-5.372	36.580	1.00	43.06
21245	N	LEU	D	389	-139.916	-4.942	38.753	1.00	41.19
21246	CA	LEU	D	389	-138.507	-4.614	38.567	1.00	39.23
21247	CB	LEU	D	389	-138.156	-3.339	39.334	1.00	39.32
21248	CG	LEU	D	389	-136.716	-2.789	39.446	1.00	39.19
21249	CD1	LEU	D	389	-135.648	-3.859	39.256	1.00	38.76
21250	CD2	LEU	D	389	-136.476	-1.627	38.500	1.00	36.57
21251	C	LEU	D	389	-137.727	-5.792	39.132	1.00	37.99
21252	O	LEU	D	389	-137.870	-6.117	40.310	1.00	37.64
21253	N	TYR	D	390	-136.944	-6.454	38.284	1.00	36.44
21254	CA	TYR	D	390	-136.096	-7.572	38.702	1.00	35.27
21255	CB	TYR	D	390	-136.120	-8.667	37.640	1.00	35.32
21256	CG	TYR	D	390	-137.462	-9.355	37.489	1.00	35.78
21257	CD1	TYR	D	390	-137.705	-10.594	38.077	1.00	35.03

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**FIGURE 3 RC**

A	B	C	D	E	F	G	H	I	J
21258	CE1	TYR	D	390	-138.926	-11.219	37.931	1.00	35.62
21259	CZ	TYR	D	390	-139.923	-10.606	37.194	1.00	36.94
21260	OH	TYR	D	390	-141.154	-11.213	37.040	1.00	38.72
21261	CE2	TYR	D	390	-139.700	-9.386	36.600	1.00	36.15
21262	CD2	TYR	D	390	-138.479	-8.768	36.752	1.00	34.64
21263	C	TYR	D	390	-134.640	-7.111	38.932	1.00	34.37
21264	O	TYR	D	390	-134.089	-6.366	38.121	1.00	33.74
21265	N	TYR	D	391	-134.021	-7.532	40.032	1.00	33.78
21266	CA	TYR	D	391	-132.633	-7.111	40.295	1.00	33.57
21267	CB	TYR	D	391	-132.588	-5.786	41.050	1.00	32.67
21268	CG	TYR	D	391	-133.038	-5.874	42.493	1.00	33.02
21269	CD1	TYR	D	391	-132.119	-6.026	43.522	1.00	31.65
21270	CE1	TYR	D	391	-132.527	-6.097	44.841	1.00	32.39
21271	CZ	TYR	D	391	-133.875	-6.002	45.149	1.00	31.55
21272	OH	TYR	D	391	-134.297	-6.080	46.457	1.00	29.40
21273	CE2	TYR	D	391	-134.806	-5.850	44.144	1.00	31.36
21274	CD2	TYR	D	391	-134.389	-5.783	42.829	1.00	33.04
21275	C	TYR	D	391	-131.789	-8.142	41.027	1.00	33.49
21276	O	TYR	D	391	-132.321	-9.035	41.686	1.00	33.47
21277	N	ILE	D	392	-130.472	-8.009	40.879	1.00	33.22
21278	CA	ILE	D	392	-129.503	-8.860	41.554	1.00	33.32
21279	CB	ILE	D	392	-128.368	-9.250	40.586	1.00	33.70
21280	CG1	ILE	D	392	-128.870	-10.182	39.476	1.00	33.03
21281	CD1	ILE	D	392	-129.221	-11.532	39.945	1.00	33.23
21282	CG2	ILE	D	392	-127.203	-9.887	41.356	1.00	33.89
21283	C	ILE	D	392	-128.886	-8.067	42.698	1.00	33.31
21284	O	ILE	D	392	-128.479	-6.910	42.518	1.00	33.78
21285	N	SER	D	393	-128.806	-8.669	43.876	1.00	32.64
21286	CA	SER	D	393	-128.183	-7.981	45.004	1.00	32.76
21287	CB	SER	D	393	-129.201	-7.144	45.790	1.00	32.51
21288	OG	SER	D	393	-129.875	-7.933	46.759	1.00	33.92
21289	C	SER	D	393	-127.472	-8.960	45.915	1.00	32.29
21290	O	SER	D	393	-127.584	-10.171	45.738	1.00	31.99
21291	N	ASN	D	394	-126.719	-8.431	46.872	1.00	32.51
21292	CA	ASN	D	394	-126.000	-9.274	47.830	1.00	32.69
21293	CB	ASN	D	394	-124.527	-8.862	47.970	1.00	32.26
21294	CG	ASN	D	394	-124.338	-7.384	48.325	1.00	31.57
21295	OD1	ASN	D	394	-125.295	-6.636	48.589	1.00	31.30
21296	ND2	ASN	D	394	-123.085	-6.951	48.298	1.00	29.02
21297	C	ASN	D	394	-126.683	-9.279	49.189	1.00	33.36
21298	O	ASN	D	394	-126.095	-9.652	50.198	1.00	32.50
21299	N	GLU	D	395	-127.944	-8.867	49.199	1.00	34.75
21300	CA	GLU	D	395	-128.707	-8.829	50.436	1.00	36.34
21301	CB	GLU	D	395	-130.149	-8.415	50.169	1.00	36.30
21302	CG	GLU	D	395	-130.976	-8.423	51.443	1.00	36.61
21303	CD	GLU	D	395	-132.358	-7.840	51.268	1.00	37.91
21304	OE1	GLU	D	395	-132.893	-7.322	52.260	1.00	39.02
21305	OE2	GLU	D	395	-132.913	-7.897	50.148	1.00	39.24
21306	C	GLU	D	395	-128.726	-10.124	51.253	1.00	37.08
21307	O	GLU	D	395	-128.535	-10.103	52.471	1.00	37.83
21308	N	TYR	D	396	-128.954	-11.245	50.589	1.00	37.66

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**FIGURE 3 RD**

A	B	C	D	E	F	G	H	I	J
21309	CA	TYR	D	396	-129.164	-12.497	51.302	1.00	38.42
21310	CB	TYR	D	396	-129.319	-13.671	50.332	1.00	39.08
21311	CG	TYR	D	396	-129.903	-14.891	50.993	1.00	40.75
21312	CD1	TYR	D	396	-129.281	-16.121	50.894	1.00	42.10
21313	CE1	TYR	D	396	-129.813	-17.229	51.500	1.00	43.64
21314	CZ	TYR	D	396	-130.974	-17.117	52.235	1.00	44.50
21315	OH	TYR	D	396	-131.491	-18.226	52.849	1.00	45.67
21316	CE2	TYR	D	396	-131.611	-15.909	52.359	1.00	43.32
21317	CD2	TYR	D	396	-131.070	-14.801	51.739	1.00	42.76
21318	C	TYR	D	396	-128.115	-12.822	52.335	1.00	38.41
21319	O	TYR	D	396	-126.949	-13.019	52.001	1.00	39.06
21320	N	LYS	D	397	-128.554	-12.879	53.594	1.00	38.17
21321	CA	LYS	D	397	-127.717	-13.254	54.735	1.00	37.76
21322	CB	LYS	D	397	-127.140	-14.660	54.554	1.00	38.02
21323	CG	LYS	D	397	-128.178	-15.777	54.569	1.00	39.40
21324	CD	LYS	D	397	-127.545	-17.152	54.746	1.00	41.15
21325	CE	LYS	D	397	-128.568	-18.272	54.523	1.00	44.14
21326	NZ	LYS	D	397	-127.948	-19.634	54.367	1.00	44.91
21327	C	LYS	D	397	-126.603	-12.263	55.024	1.00	37.22
21328	O	LYS	D	397	-125.683	-12.557	55.783	1.00	37.28
21329	N	GLY	D	398	-126.682	-11.087	54.417	1.00	36.41
21330	CA	GLY	D	398	-125.646	-10.092	54.606	1.00	35.51
21331	C	GLY	D	398	-124.273	-10.549	54.137	1.00	34.64
21332	O	GLY	D	398	-123.281	-10.208	54.746	1.00	34.99
21333	N	MET	D	399	-124.225	-11.309	53.050	1.00	34.17
21334	CA	MET	D	399	-122.972	-11.811	52.483	1.00	33.91
21335	CB	MET	D	399	-123.074	-13.312	52.149	1.00	34.02
21336	CG	MET	D	399	-123.071	-14.227	53.385	1.00	36.12
21337	SD	MET	D	399	-123.734	-15.905	53.097	1.00	40.58
21338	CE	MET	D	399	-122.457	-16.617	52.072	1.00	37.49
21339	C	MET	D	399	-122.693	-11.029	51.223	1.00	33.24
21340	O	MET	D	399	-123.348	-11.219	50.197	1.00	33.54
21341	N	PRO	D	400	-121.733	-10.127	51.296	1.00	32.85
21342	CA	PRO	D	400	-121.428	-9.258	50.157	1.00	31.96
21343	CB	PRO	D	400	-120.303	-8.368	50.689	1.00	32.56
21344	CG	PRO	D	400	-120.388	-8.488	52.219	1.00	32.56
21345	CD	PRO	D	400	-120.877	-9.856	52.469	1.00	32.49
21346	C	PRO	D	400	-120.966	-10.075	48.959	1.00	31.41
21347	O	PRO	D	400	-121.032	-9.603	47.806	1.00	31.06
21348	N	GLY	D	401	-120.535	-11.304	49.232	1.00	30.39
21349	CA	GLY	D	401	-120.019	-12.185	48.206	1.00	29.98
21350	C	GLY	D	401	-121.033	-13.138	47.618	1.00	29.92
21351	O	GLY	D	401	-120.681	-14.059	46.869	1.00	29.59
21352	N	GLY	D	402	-122.296	-12.925	47.965	1.00	30.03
21353	CA	GLY	D	402	-123.380	-13.709	47.412	1.00	30.76
21354	C	GLY	D	402	-124.202	-12.877	46.444	1.00	31.24
21355	O	GLY	D	402	-124.129	-11.646	46.459	1.00	31.82
21356	N	ARG	D	403	-124.983	-13.540	45.601	1.00	31.17
21357	CA	ARG	D	403	-125.805	-12.856	44.605	1.00	31.79
21358	CB	ARG	D	403	-125.148	-12.876	43.215	1.00	31.66
21359	CG	ARG	D	403	-123.788	-12.221	43.092	1.00	33.33



**REPLACEMENT SHEET**  
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**FIGURE 3 RE**

A	B	C	D	E	F	G	H	I	J
21360	CD	ARG	D	403	-123.842	-10.718	43.121	1.00	34.68
21361	NE	ARG	D	403	-122.545	-10.099	42.887	1.00	36.17
21362	CZ	ARG	D	403	-121.648	-9.857	43.845	1.00	37.00
21363	NH1	ARG	D	403	-120.497	-9.260	43.545	1.00	35.90
21364	NH2	ARG	D	403	-121.900	-10.215	45.103	1.00	35.24
21365	C	ARG	D	403	-127.128	-13.579	44.459	1.00	31.84
21366	O	ARG	D	403	-127.160	-14.784	44.254	1.00	31.02
21367	N	ASN	D	404	-128.222	-12.831	44.529	1.00	32.69
21368	CA	ASN	D	404	-129.536	-13.416	44.293	1.00	33.04
21369	CB	ASN	D	404	-130.216	-13.788	45.605	1.00	32.99
21370	CG	ASN	D	404	-129.598	-14.992	46.222	1.00	34.62
21371	OD1	ASN	D	404	-128.764	-14.886	47.133	1.00	38.55
21372	ND2	ASN	D	404	-129.935	-16.148	45.692	1.00	34.43
21373	C	ASN	D	404	-130.398	-12.492	43.494	1.00	33.01
21374	O	ASN	D	404	-130.138	-11.290	43.448	1.00	33.01
21375	N	LEU	D	405	-131.420	-13.069	42.863	1.00	32.93
21376	CA	LEU	D	405	-132.376	-12.328	42.045	1.00	32.18
21377	CB	LEU	D	405	-132.739	-13.130	40.792	1.00	32.03
21378	CG	LEU	D	405	-133.891	-12.620	39.926	1.00	31.61
21379	CD1	LEU	D	405	-133.548	-11.250	39.356	1.00	29.59
21380	CD2	LEU	D	405	-134.244	-13.622	38.801	1.00	30.33
21381	C	LEU	D	405	-133.635	-12.052	42.857	1.00	32.74
21382	O	LEU	D	405	-134.217	-12.949	43.495	1.00	31.85
21383	N	TYR	D	406	-134.040	-10.794	42.836	1.00	32.97
21384	CA	TYR	D	406	-135.212	-10.364	43.546	1.00	33.88
21385	CB	TYR	D	406	-134.825	-9.373	44.648	1.00	33.78
21386	CG	TYR	D	406	-133.946	-9.942	45.738	1.00	32.63
21387	CD1	TYR	D	406	-134.439	-10.130	47.023	1.00	32.00
21388	CE1	TYR	D	406	-133.630	-10.635	48.044	1.00	31.50
21389	CZ	TYR	D	406	-132.316	-10.963	47.770	1.00	30.89
21390	OH	TYR	D	406	-131.510	-11.476	48.773	1.00	32.49
21391	CE2	TYR	D	406	-131.804	-10.779	46.501	1.00	30.49
21392	CD2	TYR	D	406	-132.614	-10.266	45.493	1.00	31.07
21393	C	TYR	D	406	-136.124	-9.678	42.553	1.00	34.67
21394	O	TYR	D	406	-135.686	-9.284	41.481	1.00	35.49
21395	N	LYS	D	407	-137.395	-9.547	42.903	1.00	35.65
21396	CA	LYS	D	407	-138.341	-8.803	42.074	1.00	36.67
21397	CB	LYS	D	407	-139.286	-9.734	41.295	1.00	36.90
21398	CG	LYS	D	407	-140.233	-10.547	42.178	1.00	38.89
21399	CD	LYS	D	407	-140.922	-11.691	41.423	1.00	40.76
21400	CE	LYS	D	407	-142.154	-11.240	40.640	1.00	44.41
21401	NZ	LYS	D	407	-143.256	-12.282	40.629	1.00	43.08
21402	C	LYS	D	407	-139.127	-7.853	42.971	1.00	36.78
21403	O	LYS	D	407	-139.624	-8.234	44.042	1.00	36.66
21404	N	ILE	D	408	-139.195	-6.600	42.547	1.00	37.10
21405	CA	ILE	D	408	-139.922	-5.596	43.293	1.00	37.04
21406	CB	ILE	D	408	-139.204	-4.256	43.236	1.00	36.23
21407	CG1	ILE	D	408	-137.831	-4.326	43.878	1.00	36.01
21408	CD1	ILE	D	408	-137.158	-2.960	43.957	1.00	33.49
21409	CG2	ILE	D	408	-140.016	-3.229	43.938	1.00	36.26
21410	C	ILE	D	408	-141.289	-5.394	42.684	1.00	37.65

**REPLACEMENT SHEET**  
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**FIGURE 3 RF**

A	B	C	D	E	F	G	H	I	J
21411	O	ILE	D	408	-141.401	-5.034	41.515	1.00	37.20
21412	N	GLN	D	409	-142.330	-5.598	43.485	1.00	38.31
21413	CA	GLN	D	409	-143.691	-5.350	43.029	1.00	38.57
21414	CB	GLN	D	409	-144.674	-5.848	44.083	1.00	38.78
21415	CG	GLN	D	409	-146.009	-6.289	43.538	1.00	40.54
21416	CD	GLN	D	409	-147.113	-6.202	44.568	1.00	42.55
21417	OE1	GLN	D	409	-147.261	-7.089	45.414	1.00	44.19
21418	NE2	GLN	D	409	-147.893	-5.131	44.504	1.00	43.30
21419	C	GLN	D	409	-143.829	-3.842	42.820	1.00	38.57
21420	O	GLN	D	409	-143.724	-3.063	43.765	1.00	38.39
21421	N	LEU	D	410	-144.045	-3.418	41.581	1.00	38.83
21422	CA	LEU	D	410	-144.096	-1.990	41.286	1.00	39.17
21423	CB	LEU	D	410	-144.019	-1.742	39.778	1.00	39.59
21424	CG	LEU	D	410	-142.621	-1.439	39.217	1.00	40.31
21425	CD1	LEU	D	410	-141.515	-1.972	40.122	1.00	38.99
21426	CD2	LEU	D	410	-142.484	-1.970	37.789	1.00	40.56
21427	C	LEU	D	410	-145.308	-1.285	41.883	1.00	39.46
21428	O	LEU	D	410	-145.281	-0.070	42.101	1.00	39.25
21429	N	SER	D	411	-146.374	-2.039	42.144	1.00	39.59
21430	CA	SER	D	411	-147.547	-1.454	42.777	1.00	39.90
21431	CB	SER	D	411	-148.790	-2.339	42.590	1.00	40.21
21432	OG	SER	D	411	-148.800	-3.468	43.458	1.00	40.00
21433	C	SER	D	411	-147.274	-1.167	44.252	1.00	40.10
21434	O	SER	D	411	-147.932	-0.325	44.839	1.00	40.37
21435	N	ASP	D	412	-146.292	-1.858	44.839	1.00	40.45
21436	CA	ASP	D	412	-145.877	-1.625	46.239	1.00	40.64
21437	CB	ASP	D	412	-146.788	-2.349	47.233	1.00	40.63
21438	CG	ASP	D	412	-146.538	-1.916	48.686	1.00	41.97
21439	OD1	ASP	D	412	-147.314	-2.347	49.573	1.00	40.00
21440	OD2	ASP	D	412	-145.599	-1.142	49.029	1.00	41.57
21441	C	ASP	D	412	-144.443	-2.098	46.413	1.00	40.30
21442	O	ASP	D	412	-144.197	-3.287	46.546	1.00	40.84
21443	N	TYR	D	413	-143.489	-1.172	46.419	1.00	40.08
21444	CA	TYR	D	413	-142.079	-1.567	46.427	1.00	39.51
21445	CB	TYR	D	413	-141.158	-0.426	45.969	1.00	39.27
21446	CG	TYR	D	413	-141.130	0.781	46.862	1.00	37.33
21447	CD1	TYR	D	413	-140.282	0.833	47.949	1.00	35.88
21448	CE1	TYR	D	413	-140.229	1.934	48.757	1.00	34.67
21449	CZ	TYR	D	413	-141.029	3.004	48.492	1.00	36.06
21450	OH	TYR	D	413	-140.968	4.095	49.318	1.00	35.92
21451	CE2	TYR	D	413	-141.892	2.988	47.412	1.00	36.35
21452	CD2	TYR	D	413	-141.931	1.883	46.602	1.00	36.60
21453	C	TYR	D	413	-141.575	-2.211	47.709	1.00	39.83
21454	O	TYR	D	413	-140.532	-2.869	47.699	1.00	39.86
21455	N	THR	D	414	-142.317	-2.056	48.803	1.00	39.71
21456	CA	THR	D	414	-141.943	-2.718	50.046	1.00	39.23
21457	CB	THR	D	414	-142.774	-2.186	51.223	1.00	39.42
21458	OG1	THR	D	414	-144.175	-2.462	51.014	1.00	38.38
21459	OG2	THR	D	414	-142.691	-0.664	51.277	1.00	38.32
21460	C	THR	D	414	-142.164	-4.211	49.868	1.00	39.68
21461	O	THR	D	414	-141.595	-5.033	50.584	1.00	40.05

**REPLACEMENT SHEET**  
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**FIGURE 3 RG**

A	B	C	D	E	F	G	H	I	J
21462	N	LYS	D	415	-142.979	-4.567	48.886	1.00	39.61
21463	CA	LYS	D	415	-143.232	-5.969	48.623	1.00	40.20
21464	CB	LYS	D	415	-144.658	-6.174	48.103	1.00	40.65
21465	CG	LYS	D	415	-145.753	-5.943	49.167	1.00	42.91
21466	CD	LYS	D	415	-147.143	-6.165	48.571	1.00	48.34
21467	CE	LYS	D	415	-148.267	-5.526	49.405	1.00	51.00
21468	NZ	LYS	D	415	-149.436	-5.087	48.543	1.00	52.41
21469	C	LYS	D	415	-142.173	-6.514	47.657	1.00	39.99
21470	O	LYS	D	415	-142.234	-6.288	46.453	1.00	39.69
21471	N	VAL	D	416	-141.206	-7.239	48.206	1.00	39.55
21472	CA	VAL	D	416	-140.078	-7.713	47.432	1.00	39.65
21473	CB	VAL	D	416	-138.763	-7.049	47.913	1.00	39.43
21474	CG1	VAL	D	416	-137.575	-7.558	47.097	1.00	38.91
21475	CG2	VAL	D	416	-138.866	-5.545	47.842	1.00	38.33
21476	C	VAL	D	416	-139.905	-9.201	47.605	1.00	40.16
21477	O	VAL	D	416	-139.900	-9.697	48.730	1.00	40.54
21478	N	THR	D	417	-139.730	-9.917	46.502	1.00	40.19
21479	CA	THR	D	417	-139.552	-11.352	46.594	1.00	40.73
21480	CB	THR	D	417	-140.654	-12.083	45.815	1.00	40.89
21481	OG1	THR	D	417	-141.943	-11.584	46.207	1.00	41.38
21482	CG2	THR	D	417	-140.671	-13.551	46.219	1.00	40.34
21483	C	THR	D	417	-138.212	-11.819	46.064	1.00	41.14
21484	O	THR	D	417	-137.792	-11.447	44.972	1.00	40.93
21485	N	CYS	D	418	-137.548	-12.667	46.824	1.00	42.11
21486	CA	CYS	D	418	-136.319	-13.233	46.333	1.00	43.37
21487	CB	CYS	D	418	-135.368	-13.576	47.462	1.00	43.62
21488	SG	CYS	D	418	-133.740	-13.959	46.802	1.00	44.90
21489	C	CYS	D	418	-136.656	-14.483	45.557	1.00	43.93
21490	O	CYS	D	418	-137.248	-15.411	46.101	1.00	44.60
21491	N	LEU	D	419	-136.277	-14.502	44.284	1.00	44.37
21492	CA	LEU	D	419	-136.554	-15.628	43.405	1.00	44.48
21493	CB	LEU	D	419	-136.660	-15.136	41.961	1.00	44.17
21494	CG	LEU	D	419	-137.709	-14.031	41.779	1.00	44.46
21495	CD1	LEU	D	419	-137.792	-13.568	40.331	1.00	43.74
21496	CD2	LEU	D	419	-139.069	-14.517	42.271	1.00	42.94
21497	C	LEU	D	419	-135.520	-16.743	43.474	1.00	45.00
21498	O	LEU	D	419	-135.784	-17.866	43.037	1.00	45.47
21499	N	SER	D	420	-134.343	-16.458	44.013	1.00	45.42
21500	CA	SER	D	420	-133.297	-17.472	44.001	1.00	45.66
21501	CB	SER	D	420	-132.104	-17.002	43.159	1.00	45.76
21502	OG	SER	D	420	-131.376	-15.995	43.835	1.00	45.05
21503	C	SER	D	420	-132.817	-17.872	45.379	1.00	45.89
21504	O	SER	D	420	-132.446	-19.029	45.602	1.00	45.56
21505	N	CYS	D	421	-132.827	-16.922	46.304	1.00	46.29
21506	CA	CYS	D	421	-132.279	-17.182	47.629	1.00	47.17
21507	CB	CYS	D	421	-132.876	-16.234	48.664	1.00	47.16
21508	SG	CYS	D	421	-132.521	-14.509	48.309	1.00	47.80
21509	C	CYS	D	421	-132.507	-18.599	48.090	1.00	47.61
21510	O	CYS	D	421	-131.597	-19.270	48.577	1.00	47.82
21511	N	GLU	D	422	-133.728	-19.071	47.916	1.00	48.19
21512	CA	GLU	D	422	-134.098	-20.349	48.500	1.00	48.46

**REPLACEMENT SHEET**  
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**FIGURE 3 RH**

A	B	C	D	E	F	G	H	I	J
21513	CB	GLU	D	422	-135.454	-20.191	49.179	1.00	48.73
21514	CG	GLU	D	422	-135.466	-20.669	50.606	1.00	50.61
21515	CD	GLU	D	422	-134.709	-19.725	51.495	1.00	52.80
21516	OE1	GLU	D	422	-133.838	-20.187	52.279	1.00	53.41
21517	OE2	GLU	D	422	-134.994	-18.515	51.391	1.00	53.84
21518	C	GLU	D	422	-134.134	-21.547	47.560	1.00	47.86
21519	O	GLU	D	422	-134.444	-22.642	47.997	1.00	47.92
21520	N	LEU	D	423	-133.826	-21.359	46.283	1.00	47.66
21521	CA	LEU	D	423	-133.895	-22.482	45.340	1.00	47.50
21522	CB	LEU	D	423	-133.505	-22.062	43.928	1.00	46.72
21523	CG	LEU	D	423	-134.432	-21.064	43.237	1.00	46.71
21524	CD1	LEU	D	423	-133.861	-20.714	41.865	1.00	45.47
21525	CD2	LEU	D	423	-135.879	-21.585	43.131	1.00	44.66
21526	C	LEU	D	423	-133.075	-23.702	45.742	1.00	47.55
21527	O	LEU	D	423	-133.505	-24.831	45.525	1.00	48.17
21528	N	ASN	D	424	-131.904	-23.468	46.318	1.00	47.60
21529	CA	ASN	D	424	-130.973	-24.525	46.690	1.00	47.92
21530	CB	ASN	D	424	-130.413	-25.192	45.437	1.00	47.81
21531	CG	ASN	D	424	-129.955	-26.611	45.692	1.00	49.37
21532	OD1	ASN	D	424	-129.435	-26.929	46.764	1.00	49.33
21533	ND2	ASN	D	424	-130.155	-27.481	44.704	1.00	51.05
21534	C	ASN	D	424	-129.836	-23.901	47.503	1.00	47.90
21535	O	ASN	D	424	-128.681	-23.873	47.083	1.00	47.55
21536	N	PRO	D	425	-130.191	-23.443	48.694	1.00	47.98
21537	CA	PRO	D	425	-129.311	-22.654	49.567	1.00	48.03
21538	CB	PRO	D	425	-130.123	-22.569	50.868	1.00	48.10
21539	CG	PRO	D	425	-131.064	-23.736	50.765	1.00	48.04
21540	CD	PRO	D	425	-131.498	-23.696	49.323	1.00	47.95
21541	C	PRO	D	425	-127.924	-23.227	49.870	1.00	48.20
21542	O	PRO	D	425	-127.037	-22.452	50.238	1.00	48.51
21543	N	GLU	D	426	-127.737	-24.537	49.754	1.00	47.89
21544	CA	GLU	D	426	-126.446	-25.129	50.076	1.00	47.79
21545	CB	GLU	D	426	-126.594	-26.585	50.536	1.00	48.56
21546	CG	GLU	D	426	-127.339	-26.801	51.843	1.00	50.73
21547	CD	GLU	D	426	-127.464	-28.279	52.171	1.00	54.79
21548	OE1	GLU	D	426	-126.586	-28.803	52.894	1.00	56.18
21549	OE2	GLU	D	426	-128.432	-28.924	51.692	1.00	56.61
21550	C	GLU	D	426	-125.526	-25.102	48.877	1.00	46.74
21551	O	GLU	D	426	-124.343	-24.816	49.004	1.00	46.76
21552	N	ARG	D	427	-126.065	-25.427	47.707	1.00	45.40
21553	CA	ARG	D	427	-125.240	-25.467	46.519	1.00	44.20
21554	CB	ARG	D	427	-125.727	-26.551	45.546	1.00	44.04
21555	CG	ARG	D	427	-125.723	-26.080	44.107	1.00	44.50
21556	CD	ARG	D	427	-125.038	-26.983	43.086	1.00	43.76
21557	NE	ARG	D	427	-125.908	-28.054	42.638	1.00	42.34
21558	CZ	ARG	D	427	-125.861	-28.639	41.452	1.00	42.26
21559	NH1	ARG	D	427	-126.715	-29.615	41.190	1.00	45.11
21560	NH2	ARG	D	427	-124.995	-28.263	40.521	1.00	40.08
21561	C	ARG	D	427	-125.173	-24.128	45.798	1.00	43.49
21562	O	ARG	D	427	-124.241	-23.877	45.031	1.00	43.01
21563	N	CYS	D	428	-126.138	-23.259	46.078	1.00	42.43

**REPLACEMENT SHEET**  
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**FIGURE 3 RI**

A	B	C	D	E	F	G	H	I	J
21564	CA	CYS	D	428	-126.316	-22.075	45.261	1.00	41.60
21565	CB	CYS	D	428	-127.509	-22.311	44.340	1.00	41.72
21566	SG	CYS	D	428	-127.122	-23.466	43.014	1.00	42.76
21567	C	CYS	D	428	-126.529	-20.771	45.990	1.00	40.66
21568	O	CYS	D	428	-127.604	-20.527	46.522	1.00	40.59
21569	N	GLN	D	429	-125.523	-19.903	45.984	1.00	39.42
21570	CA	GLN	D	429	-125.729	-18.605	46.588	1.00	38.59
21571	CB	GLN	D	429	-125.367	-18.610	48.088	1.00	38.58
21572	CG	GLN	D	429	-123.947	-18.912	48.379	1.00	40.51
21573	CD	GLN	D	429	-123.720	-19.460	49.771	1.00	43.04
21574	OE1	GLN	D	429	-124.587	-20.127	50.344	1.00	44.99
21575	NE2	GLN	D	429	-122.540	-19.206	50.309	1.00	42.87
21576	C	GLN	D	429	-125.122	-17.462	45.759	1.00	37.72
21577	O	GLN	D	429	-125.005	-16.334	46.225	1.00	37.52
21578	N	TYR	D	430	-124.799	-17.759	44.501	1.00	36.84
21579	CA	TYR	D	430	-124.289	-16.762	43.564	1.00	36.29
21580	CB	TYR	D	430	-122.778	-16.910	43.408	1.00	36.15
21581	CG	TYR	D	430	-122.035	-15.707	42.852	1.00	35.36
21582	CD1	TYR	D	430	-122.065	-15.387	41.501	1.00	34.99
21583	CE1	TYR	D	430	-121.359	-14.288	41.012	1.00	34.16
21584	CZ	TYR	D	430	-120.606	-13.530	41.890	1.00	34.72
21585	OH	TYR	D	430	-119.880	-12.448	41.470	1.00	34.97
21586	CE2	TYR	D	430	-120.556	-13.848	43.215	1.00	34.00
21587	CD2	TYR	D	430	-121.264	-14.918	43.686	1.00	35.44
21588	C	TYR	D	430	-124.948	-16.973	42.207	1.00	36.15
21589	O	TYR	D	430	-124.584	-17.900	41.484	1.00	36.07
21590	N	TYR	D	431	-125.888	-16.102	41.848	1.00	35.64
21591	CA	TYR	D	431	-126.613	-16.241	40.589	1.00	35.47
21592	CB	TYR	D	431	-128.108	-16.294	40.856	1.00	35.49
21593	CG	TYR	D	431	-128.639	-17.525	41.507	1.00	36.37
21594	CD1	TYR	D	431	-129.229	-18.524	40.751	1.00	37.01
21595	CE1	TYR	D	431	-129.747	-19.658	41.347	1.00	36.29
21596	CZ	TYR	D	431	-129.695	-19.780	42.702	1.00	35.52
21597	OH	TYR	D	431	-130.217	-20.892	43.297	1.00	36.69
21598	CE2	TYR	D	431	-129.115	-18.794	43.482	1.00	36.76
21599	CD2	TYR	D	431	-128.603	-17.674	42.866	1.00	36.41
21600	C	TYR	D	431	-126.505	-15.076	39.635	1.00	35.33
21601	O	TYR	D	431	-126.292	-13.936	40.032	1.00	35.64
21602	N	SER	D	432	-126.710	-15.381	38.368	1.00	35.27
21603	CA	SER	D	432	-126.946	-14.371	37.354	1.00	35.96
21604	CB	SER	D	432	-125.799	-14.267	36.358	1.00	35.30
21605	OG	SER	D	432	-125.588	-15.515	35.744	1.00	35.72
21606	C	SER	D	432	-128.229	-14.841	36.655	1.00	36.30
21607	O	SER	D	432	-128.697	-15.970	36.871	1.00	36.14
21608	N	VAL	D	433	-128.791	-13.985	35.821	1.00	36.82
21609	CA	VAL	D	433	-130.037	-14.311	35.163	1.00	37.56
21610	CB	VAL	D	433	-131.196	-13.678	35.930	1.00	37.90
21611	CG1	VAL	D	433	-131.030	-12.169	35.935	1.00	36.95
21612	CG2	VAL	D	433	-132.543	-14.108	35.341	1.00	38.37
21613	C	VAL	D	433	-130.087	-13.836	33.706	1.00	38.13
21614	O	VAL	D	433	-129.519	-12.800	33.344	1.00	37.79

**REPLACEMENT SHEET**  
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**FIGURE 3 RJ**

A	B	C	D	E	F	G	H	I	J
21615	N	SER	D	434	-130.744	-14.629	32.870	1.00	38.99
21616	CA	SER	D	434	-130.968	-14.265	31.479	1.00	40.18
21617	CB	SER	D	434	-130.234	-15.215	30.536	1.00	40.13
21618	OG	SER	D	434	-130.388	-14.789	29.191	1.00	41.55
21619	C	SER	D	434	-132.477	-14.283	31.216	1.00	40.75
21620	O	SER	D	434	-133.128	-15.330	31.301	1.00	40.69
21621	N	PHE	D	435	-133.034	-13.115	30.924	1.00	41.85
21622	CA	PHE	D	435	-134.469	-12.993	30.702	1.00	43.32
21623	CB	PHE	D	435	-134.993	-11.682	31.292	1.00	43.21
21624	CG	PHE	D	435	-135.297	-11.755	32.753	1.00	43.92
21625	CD1	PHE	D	435	-134.322	-11.471	33.690	1.00	44.21
21626	CE1	PHE	D	435	-134.599	-11.536	35.036	1.00	44.76
21627	CZ	PHE	D	435	-135.863	-11.887	35.466	1.00	45.46
21628	CE2	PHE	D	435	-136.843	-12.176	34.543	1.00	45.16
21629	CD2	PHE	D	435	-136.556	-12.111	33.191	1.00	44.63
21630	C	PHE	D	435	-134.872	-13.051	29.237	1.00	44.20
21631	O	PHE	D	435	-134.188	-12.488	28.370	1.00	44.32
21632	N	SER	D	436	-135.992	-13.721	28.971	1.00	45.14
21633	CA	SER	D	436	-136.565	-13.726	27.629	1.00	46.32
21634	CB	SER	D	436	-137.775	-14.657	27.536	1.00	46.16
21635	OG	SER	D	436	-138.793	-14.300	28.455	1.00	45.63
21636	C	SER	D	436	-136.939	-12.285	27.313	1.00	47.45
21637	O	SER	D	436	-137.091	-11.474	28.234	1.00	47.31
21638	N	LYS	D	437	-137.110	-11.976	26.027	1.00	48.89
21639	CA	LYS	D	437	-137.283	-10.595	25.575	1.00	50.52
21640	CB	LYS	D	437	-137.419	-10.494	24.042	1.00	50.79
21641	CG	LYS	D	437	-138.798	-10.738	23.462	1.00	52.70
21642	CD	LYS	D	437	-138.760	-10.584	21.936	1.00	55.69
21643	CE	LYS	D	437	-140.158	-10.610	21.304	1.00	56.82
21644	NZ	LYS	D	437	-140.888	-11.882	21.586	1.00	58.40
21645	C	LYS	D	437	-138.298	-9.724	26.319	1.00	51.23
21646	O	LYS	D	437	-138.068	-8.526	26.491	1.00	51.25
21647	N	GLU	D	438	-139.412	-10.294	26.759	1.00	52.30
21648	CA	GLU	D	438	-140.339	-9.499	27.565	1.00	53.37
21649	CB	GLU	D	438	-141.729	-9.380	26.932	1.00	53.96
21650	CG	GLU	D	438	-142.041	-7.988	26.383	1.00	57.23
21651	CD	GLU	D	438	-141.751	-7.856	24.898	1.00	61.31
21652	OE1	GLU	D	438	-140.599	-8.124	24.485	1.00	63.06
21653	OE2	GLU	D	438	-142.683	-7.495	24.141	1.00	62.55
21654	C	GLU	D	438	-140.408	-10.017	28.995	1.00	53.07
21655	O	GLU	D	438	-141.348	-9.726	29.736	1.00	53.48
21656	N	ALA	D	439	-139.399	-10.795	29.367	1.00	52.51
21657	CA	ALA	D	439	-139.267	-11.291	30.732	1.00	51.94
21658	CB	ALA	D	439	-139.268	-10.130	31.722	1.00	52.12
21659	C	ALA	D	439	-140.318	-12.318	31.117	1.00	51.46
21660	O	ALA	D	439	-140.627	-12.481	32.297	1.00	51.35
21661	N	LYS	D	440	-140.858	-13.004	30.116	1.00	50.81
21662	CA	LYS	D	440	-141.808	-14.087	30.333	1.00	50.15
21663	CB	LYS	D	440	-142.288	-14.646	28.991	1.00	50.59
21664	CG	LYS	D	440	-143.716	-14.293	28.585	1.00	52.48
21665	CD	LYS	D	440	-144.161	-15.176	27.408	1.00	54.74

**REPLACEMENT SHEET**  
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**FIGURE 3 RK**

A	B	C	D	E	F	G	H	I	J
21666	CE	LYS	D	440	-145.640	-15.003	27.069	1.00	56.58
21667	NZ	LYS	D	440	-145.904	-13.744	26.309	1.00	56.63
21668	C	LYS	D	440	-141.121	-15.205	31.085	1.00	49.03
21669	O	LYS	D	440	-141.705	-15.838	31.947	1.00	48.80
21670	N	TYR	D	441	-139.873	-15.460	30.733	1.00	48.21
21671	CA	TYR	D	441	-139.120	-16.517	31.374	1.00	47.74
21672	CB	TYR	D	441	-138.895	-17.673	30.406	1.00	47.94
21673	CG	TYR	D	441	-140.137	-18.159	29.711	1.00	50.35
21674	CD1	TYR	D	441	-140.543	-17.597	28.510	1.00	51.56
21675	CE1	TYR	D	441	-141.671	-18.038	27.865	1.00	53.50
21676	CZ	TYR	D	441	-142.412	-19.062	28.409	1.00	53.86
21677	OH	TYR	D	441	-143.537	-19.496	27.753	1.00	54.95
21678	CE2	TYR	D	441	-142.035	-19.642	29.603	1.00	53.67
21679	CD2	TYR	D	441	-140.897	-19.190	30.247	1.00	51.95
21680	C	TYR	D	441	-137.762	-16.009	31.776	1.00	46.81
21681	O	TYR	D	441	-137.343	-14.930	31.354	1.00	46.48
21682	N	TYR	D	442	-137.062	-16.810	32.574	1.00	45.97
21683	CA	TYR	D	442	-135.684	-16.495	32.914	1.00	44.89
21684	CB	TYR	D	442	-135.590	-15.490	34.064	1.00	44.45
21685	CG	TYR	D	442	-136.242	-15.889	35.363	1.00	43.39
21686	CD1	TYR	D	442	-137.520	-15.445	35.680	1.00	41.55
21687	CE1	TYR	D	442	-138.116	-15.778	36.871	1.00	39.53
21688	CZ	TYR	D	442	-137.433	-16.544	37.783	1.00	39.57
21689	OH	TYR	D	442	-138.045	-16.872	38.963	1.00	40.52
21690	CE2	TYR	D	442	-136.159	-16.992	37.516	1.00	40.25
21691	CD2	TYR	D	442	-135.560	-16.655	36.308	1.00	42.45
21692	C	TYR	D	442	-134.801	-17.712	33.162	1.00	44.37
21693	O	TYR	D	442	-135.222	-18.700	33.765	1.00	44.44
21694	N	GLN	D	443	-133.581	-17.648	32.649	1.00	43.41
21695	CA	GLN	D	443	-132.625	-18.688	32.944	1.00	42.92
21696	CB	GLN	D	443	-131.656	-18.931	31.785	1.00	42.69
21697	CG	GLN	D	443	-130.544	-19.908	32.162	1.00	42.04
21698	CD	GLN	D	443	-129.411	-19.954	31.152	1.00	42.81
21699	OE1	GLN	D	443	-128.810	-21.009	30.948	1.00	43.87
21700	NE2	GLN	D	443	-129.120	-18.825	30.519	1.00	41.23
21701	C	GLN	D	443	-131.858	-18.224	34.174	1.00	42.66
21702	O	GLN	D	443	-131.360	-17.099	34.223	1.00	42.28
21703	N	LEU	D	444	-131.783	-19.088	35.172	1.00	42.18
21704	CA	LEU	D	444	-131.056	-18.772	36.371	1.00	41.84
21705	CB	LEU	D	444	-131.813	-19.301	37.580	1.00	41.66
21706	CG	LEU	D	444	-132.168	-18.325	38.705	1.00	41.03
21707	CD1	LEU	D	444	-132.217	-16.883	38.224	1.00	38.47
21708	CD2	LEU	D	444	-133.492	-18.738	39.336	1.00	38.99
21709	C	LEU	D	444	-129.730	-19.488	36.225	1.00	42.26
21710	O	LEU	D	444	-129.691	-20.644	35.759	1.00	42.21
21711	N	ARG	D	445	-128.647	-18.800	36.586	1.00	42.14
21712	CA	ARG	D	445	-127.309	-19.385	36.527	1.00	42.28
21713	CB	ARG	D	445	-126.464	-18.679	35.471	1.00	42.67
21714	CG	ARG	D	445	-124.990	-19.098	35.433	1.00	44.72
21715	CD	ARG	D	445	-124.049	-17.909	35.576	1.00	48.07
21716	NE	ARG	D	445	-122.828	-17.971	34.777	1.00	48.95

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**FIGURE 3 RL**

A	B	C	D	E	F	G	H	I	J
21717	CZ	ARG	D	445	-122.216	-16.885	34.304	1.00	50.04
21718	NH1	ARG	D	445	-121.096	-16.994	33.596	1.00	51.55
21719	NH2	ARG	D	445	-122.720	-15.680	34.554	1.00	47.93
21720	C	ARG	D	445	-126.636	-19.293	37.903	1.00	42.16
21721	O	ARG	D	445	-126.298	-18.204	38.374	1.00	41.53
21722	N	CYS	D	446	-126.456	-20.450	38.534	1.00	41.65
21723	CA	CYS	D	446	-125.851	-20.554	39.848	1.00	41.54
21724	CB	CYS	D	446	-126.619	-21.589	40.651	1.00	41.64
21725	SG	CYS	D	446	-125.705	-22.405	41.978	1.00	46.47
21726	C	CYS	D	446	-124.361	-20.924	39.741	1.00	40.75
21727	O	CYS	D	446	-123.999	-21.988	39.211	1.00	40.72
21728	N	SER	D	447	-123.497	-20.052	40.252	1.00	39.17
21729	CA	SER	D	447	-122.068	-20.271	40.124	1.00	38.14
21730	CB	SER	D	447	-121.359	-18.974	39.706	1.00	38.31
21731	OG	SER	D	447	-121.675	-18.644	38.361	1.00	38.49
21732	C	SER	D	447	-121.380	-20.888	41.346	1.00	37.06
21733	O	SER	D	447	-120.213	-21.269	41.267	1.00	36.73
21734	N	GLY	D	448	-122.087	-20.995	42.464	1.00	35.95
21735	CA	GLY	D	448	-121.483	-21.548	43.666	1.00	34.88
21736	C	GLY	D	448	-122.336	-21.332	44.886	1.00	34.41
21737	O	GLY	D	448	-123.344	-20.628	44.820	1.00	34.38
21738	N	PRO	D	449	-121.900	-21.843	46.032	1.00	34.18
21739	CA	PRO	D	449	-120.606	-22.503	46.199	1.00	34.35
21740	CB	PRO	D	449	-120.456	-22.511	47.714	1.00	34.42
21741	CG	PRO	D	449	-121.830	-22.751	48.151	1.00	34.59
21742	CD	PRO	D	449	-122.637	-21.785	47.301	1.00	33.81
21743	C	PRO	D	449	-120.477	-23.949	45.701	1.00	34.75
21744	O	PRO	D	449	-119.353	-24.445	45.712	1.00	34.04
21745	N	GLY	D	450	-121.570	-24.618	45.329	1.00	34.83
21746	CA	GLY	D	450	-121.467	-25.974	44.826	1.00	35.54
21747	C	GLY	D	450	-121.216	-25.904	43.328	1.00	36.40
21748	O	GLY	D	450	-120.901	-24.833	42.820	1.00	36.56
21749	N	LEU	D	451	-121.375	-27.019	42.619	1.00	37.17
21750	CA	LEU	D	451	-121.167	-27.035	41.171	1.00	38.36
21751	CB	LEU	D	451	-121.264	-28.450	40.599	1.00	38.29
21752	CG	LEU	D	451	-120.316	-29.497	41.169	1.00	39.47
21753	CD1	LEU	D	451	-118.947	-28.897	41.404	1.00	42.20
21754	CD2	LEU	D	451	-120.222	-30.691	40.226	1.00	39.59
21755	C	LEU	D	451	-122.192	-26.164	40.489	1.00	38.94
21756	O	LEU	D	451	-123.328	-26.094	40.929	1.00	38.53
21757	N	PRO	D	452	-121.793	-25.512	39.405	1.00	39.85
21758	CA	PRO	D	452	-122.686	-24.601	38.692	1.00	40.73
21759	CB	PRO	D	452	-121.879	-24.214	37.443	1.00	40.68
21760	CG	PRO	D	452	-120.463	-24.420	37.829	1.00	40.65
21761	CD	PRO	D	452	-120.460	-25.592	38.784	1.00	40.03
21762	C	PRO	D	452	-123.984	-25.284	38.294	1.00	41.76
21763	O	PRO	D	452	-123.955	-26.413	37.795	1.00	41.77
21764	N	LEU	D	453	-125.104	-24.589	38.489	1.00	42.72
21765	CA	LEU	D	453	-126.409	-25.132	38.142	1.00	44.01
21766	CB	LEU	D	453	-127.171	-25.472	39.421	1.00	43.65
21767	CG	LEU	D	453	-128.654	-25.818	39.330	1.00	44.43



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**FIGURE 3 RM**

A	B	C	D	E	F	G	H	I	J
21768	CD1	LEU	D	453	-128.878	-27.054	38.482	1.00	45.71
21769	CD2	LEU	D	453	-129.205	-26.022	40.733	1.00	43.84
21770	C	LEU	D	453	-127.218	-24.183	37.243	1.00	44.57
21771	O	LEU	D	453	-127.478	-23.038	37.599	1.00	45.35
21772	N	TYR	D	454	-127.615	-24.658	36.072	1.00	45.35
21773	CA	TYR	D	454	-128.392	-23.839	35.144	1.00	45.92
21774	CB	TYR	D	454	-127.792	-23.924	33.745	1.00	45.73
21775	CG	TYR	D	454	-126.402	-23.350	33.654	1.00	45.75
21776	CD1	TYR	D	454	-126.179	-22.131	33.033	1.00	45.46
21777	CE1	TYR	D	454	-124.913	-21.598	32.943	1.00	45.32
21778	C2	TYR	D	454	-123.845	-22.278	33.479	1.00	44.31
21779	OH	TYR	D	454	-122.596	-21.729	33.374	1.00	42.66
21780	CE2	TYR	D	454	-124.028	-23.497	34.100	1.00	44.72
21781	CD2	TYR	D	454	-125.306	-24.029	34.182	1.00	46.13
21782	C	TYR	D	454	-129.851	-24.285	35.112	1.00	46.43
21783	O	TYR	D	454	-130.134	-25.451	34.886	1.00	46.58
21784	N	THR	D	455	-130.774	-23.356	35.343	1.00	47.08
21785	CA	THR	D	455	-132.193	-23.690	35.367	1.00	47.64
21786	CB	THR	D	455	-132.713	-23.740	36.813	1.00	47.54
21787	OG1	THR	D	455	-132.289	-22.567	37.508	1.00	47.64
21788	CG2	THR	D	455	-132.039	-24.851	37.592	1.00	47.78
21789	C	THR	D	455	-133.045	-22.730	34.539	1.00	47.80
21790	O	THR	D	455	-132.574	-21.687	34.105	1.00	48.21
21791	N	LEU	D	456	-134.306	-23.097	34.332	1.00	48.04
21792	CA	LEU	D	456	-135.245	-22.295	33.550	1.00	48.05
21793	CB	LEU	D	456	-135.546	-22.994	32.223	1.00	48.01
21794	CG	LEU	D	456	-135.875	-22.155	30.989	1.00	47.55
21795	CD1	LEU	D	456	-137.272	-22.447	30.468	1.00	47.66
21796	CD2	LEU	D	456	-135.672	-20.683	31.245	1.00	46.82
21797	C	LEU	D	456	-136.526	-22.093	34.342	1.00	48.19
21798	O	LEU	D	456	-137.050	-23.031	34.929	1.00	47.89
21799	N	HIS	D	457	-137.034	-20.864	34.352	1.00	48.72
21800	CA	HIS	D	457	-138.213	-20.543	35.142	1.00	48.94
21801	CB	HIS	D	457	-137.789	-19.790	36.408	1.00	48.74
21802	CG	HIS	D	457	-136.662	-20.441	37.143	1.00	47.92
21803	ND1	HIS	D	457	-136.837	-21.096	38.344	1.00	47.19
21804	CE1	HIS	D	457	-135.677	-21.581	38.751	1.00	46.29
21805	NE2	HIS	D	457	-134.759	-21.274	37.852	1.00	47.36
21806	CD2	HIS	D	457	-135.348	-20.558	36.838	1.00	47.16
21807	C	HIS	D	457	-139.197	-19.682	34.381	1.00	49.53
21808	O	HIS	D	457	-138.798	-18.879	33.538	1.00	49.59
21809	N	SER	D	458	-140.487	-19.847	34.674	1.00	50.26
21810	CA	SER	D	458	-141.500	-18.966	34.102	1.00	50.88
21811	CB	SER	D	458	-142.767	-19.726	33.713	1.00	50.96
21812	OG	SER	D	458	-143.549	-20.052	34.849	1.00	51.17
21813	C	SER	D	458	-141.812	-17.902	35.145	1.00	51.50
21814	O	SER	D	458	-142.068	-18.221	36.306	1.00	50.79
21815	N	SER	D	459	-141.764	-16.640	34.730	1.00	52.70
21816	CA	SER	D	459	-141.974	-15.522	35.642	1.00	54.05
21817	CB	SER	D	459	-141.491	-14.211	35.016	1.00	54.13
21818	OG	SER	D	459	-141.658	-14.227	33.618	1.00	54.49

**REPLACEMENT SHEET**  
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**FIGURE 3 RN**

A	B	C	D	E	F	G	H	I	J
21819	C	SER	D	459	-143.408	-15.385	36.140	1.00	54.93
21820	O	SER	D	459	-143.638	-14.942	37.261	1.00	55.05
21821	N	VAL	D	460	-144.364	-15.778	35.310	1.00	56.06
21822	CA	VAL	D	460	-145.769	-15.728	35.691	1.00	57.14
21823	CB	VAL	D	460	-146.599	-16.732	34.878	1.00	57.09
21824	CG1	VAL	D	460	-148.034	-16.753	35.373	1.00	57.72
21825	CG2	VAL	D	460	-146.546	-16.377	33.396	1.00	57.91
21826	C	VAL	D	460	-145.969	-16.006	37.181	1.00	57.62
21827	O	VAL	D	460	-146.490	-15.164	37.909	1.00	57.81
21828	N	ASN	D	461	-145.563	-17.192	37.624	1.00	58.27
21829	CA	ASN	D	461	-145.685	-17.576	39.021	1.00	58.95
21830	CB	ASN	D	461	-146.436	-18.902	39.147	1.00	59.48
21831	CG	ASN	D	461	-147.945	-18.738	39.068	1.00	60.70
21832	OD1	ASN	D	461	-148.521	-17.831	39.679	1.00	62.63
21833	ND2	ASN	D	461	-148.594	-19.627	38.326	1.00	61.00
21834	C	ASN	D	461	-144.319	-17.718	39.688	1.00	59.24
21835	O	ASN	D	461	-144.211	-17.653	40.914	1.00	59.41
21836	N	ASP	D	462	-143.288	-17.931	38.873	1.00	59.20
21837	CA	ASP	D	462	-141.924	-18.130	39.353	1.00	59.12
21838	CB	ASP	D	462	-141.595	-17.211	40.532	1.00	59.07
21839	CG	ASP	D	462	-141.596	-15.763	40.144	1.00	58.94
21840	OD1	ASP	D	462	-142.050	-14.930	40.955	1.00	57.44
21841	OD2	ASP	D	462	-141.167	-15.370	39.037	1.00	60.22
21842	C	ASP	D	462	-141.668	-19.568	39.752	1.00	59.26
21843	O	ASP	D	462	-141.084	-19.831	40.804	1.00	59.45
21844	N	LYS	D	463	-142.099	-20.511	38.923	1.00	59.18
21845	CA	LYS	D	463	-141.795	-21.907	39.216	1.00	59.00
21846	CB	LYS	D	463	-143.052	-22.776	39.243	1.00	59.52
21847	CG	LYS	D	463	-143.458	-23.162	40.667	1.00	60.85
21848	CD	LYS	D	463	-142.289	-23.831	41.401	1.00	62.85
21849	CE	LYS	D	463	-142.425	-23.690	42.922	1.00	64.92
21850	NZ	LYS	D	463	-142.345	-22.260	43.400	1.00	65.38
21851	C	LYS	D	463	-140.748	-22.497	38.289	1.00	58.46
21852	O	LYS	D	463	-140.526	-22.010	37.181	1.00	58.19
21853	N	GLY	D	464	-140.093	-23.544	38.769	1.00	57.94
21854	CA	GLY	D	464	-139.066	-24.202	38.001	1.00	57.62
21855	C	GLY	D	464	-139.659	-24.968	36.846	1.00	57.48
21856	O	GLY	D	464	-140.497	-25.846	37.035	1.00	57.38
21857	N	LEU	D	465	-139.238	-24.621	35.640	1.00	57.33
21858	CA	LEU	D	465	-139.677	-25.347	34.464	1.00	57.18
21859	CB	LEU	D	465	-139.479	-24.516	33.198	1.00	57.23
21860	CG	LEU	D	465	-140.300	-23.225	33.212	1.00	56.97
21861	CD1	LEU	D	465	-140.474	-22.677	31.814	1.00	57.14
21862	CD2	LEU	D	465	-141.658	-23.480	33.839	1.00	57.78
21863	C	LEU	D	465	-138.870	-26.634	34.431	1.00	57.04
21864	O	LEU	D	465	-139.441	-27.728	34.406	1.00	57.23
21865	N	ARG	D	466	-137.545	-26.501	34.451	1.00	56.48
21866	CA	ARG	D	466	-136.669	-27.665	34.516	1.00	55.99
21867	CB	ARG	D	466	-136.913	-28.611	33.332	1.00	56.46
21868	CG	ARG	D	466	-135.962	-28.458	32.155	1.00	57.71
21869	CD	ARG	D	466	-136.392	-27.429	31.135	1.00	59.67

**REPLACEMENT SHEET**  
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**FIGURE 3 RO**

A	B	C	D	E	F	G	H	I	J
21870	NE	ARG	D	466	-137.825	-27.484	30.892	1.00	61.10
21871	CZ	ARG	D	466	-138.436	-26.808	29.934	1.00	61.87
21872	NH1	ARG	D	466	-139.750	-26.900	29.786	1.00	61.82
21873	NH2	ARG	D	466	-137.729	-26.038	29.118	1.00	63.21
21874	C	ARG	D	466	-135.183	-27.321	34.629	1.00	55.20
21875	O	ARG	D	466	-134.778	-26.172	34.471	1.00	54.90
21876	N	VAL	D	467	-134.387	-28.348	34.911	1.00	54.30
21877	CA	VAL	D	467	-132.940	-28.235	35.016	1.00	53.21
21878	CB	VAL	D	467	-132.379	-29.388	35.855	1.00	53.42
21879	CG1	VAL	D	467	-130.866	-29.275	35.982	1.00	53.35
21880	CG2	VAL	D	467	-133.048	-29.425	37.222	1.00	53.85
21881	C	VAL	D	467	-132.279	-28.300	33.638	1.00	52.47
21882	O	VAL	D	467	-132.426	-29.303	32.921	1.00	52.40
21883	N	LEU	D	468	-131.548	-27.239	33.279	1.00	50.89
21884	CA	LEU	D	468	-130.846	-27.163	31.995	1.00	49.70
21885	CB	LEU	D	468	-130.698	-25.708	31.543	1.00	49.44
21886	CG	LEU	D	468	-132.023	-25.027	31.199	1.00	49.27
21887	CD1	LEU	D	468	-131.810	-23.567	30.840	1.00	48.79
21888	CD2	LEU	D	468	-132.738	-25.778	30.060	1.00	49.05
21889	C	LEU	D	468	-129.482	-27.862	31.995	1.00	49.07
21890	O	LEU	D	468	-129.169	-28.622	31.084	1.00	48.54
21891	N	GLU	D	469	-128.664	-27.578	33.007	1.00	48.58
21892	CA	GLU	D	469	-127.357	-28.220	33.139	1.00	47.89
21893	CB	GLU	D	469	-126.288	-27.444	32.375	1.00	47.67
21894	CG	GLU	D	469	-124.891	-28.041	32.469	1.00	47.41
21895	CD	GLU	D	469	-124.799	-29.453	31.914	1.00	45.94
21896	OE1	GLU	D	469	-124.655	-30.393	32.725	1.00	45.51
21897	OE2	GLU	D	469	-124.838	-29.618	30.671	1.00	44.03
21898	C	GLU	D	469	-127.012	-28.323	34.623	1.00	47.83
21899	O	GLU	D	469	-127.058	-27.328	35.358	1.00	48.11
21900	N	ASP	D	470	-126.679	-29.522	35.079	1.00	47.04
21901	CA	ASP	D	470	-126.422	-29.701	36.501	1.00	46.35
21902	CB	ASP	D	470	-127.510	-30.573	37.110	1.00	46.59
21903	CG	ASP	D	470	-127.258	-32.053	36.895	1.00	47.45
21904	OD1	ASP	D	470	-127.874	-32.856	37.625	1.00	49.16
21905	OD2	ASP	D	470	-126.466	-32.507	36.034	1.00	47.48
21906	C	ASP	D	470	-125.043	-30.270	36.854	1.00	45.48
21907	O	ASP	D	470	-124.777	-30.538	38.010	1.00	45.18
21908	N	ASN	D	471	-124.189	-30.480	35.857	1.00	45.37
21909	CA	ASN	D	471	-122.825	-30.972	36.093	1.00	45.03
21910	CB	ASN	D	471	-122.002	-29.909	36.820	1.00	44.74
21911	CG	ASN	D	471	-121.718	-28.741	35.955	1.00	43.13
21912	OD1	ASN	D	471	-121.105	-28.887	34.912	1.00	43.43
21913	ND2	ASN	D	471	-122.199	-27.572	36.347	1.00	43.86
21914	C	ASN	D	471	-122.713	-32.284	36.850	1.00	45.61
21915	O	ASN	D	471	-121.718	-32.519	37.555	1.00	45.32
21916	N	SER	D	472	-123.725	-33.135	36.712	1.00	45.97
21917	CA	SER	D	472	-123.686	-34.434	37.358	1.00	46.60
21918	CB	SER	D	472	-124.987	-35.216	37.114	1.00	46.83
21919	OG	SER	D	472	-125.225	-35.407	35.734	1.00	45.94
21920	C	SER	D	472	-122.487	-35.202	36.830	1.00	46.97

**REPLACEMENT SHEET**  
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**FIGURE 3 RP**

A	B	C	D	E	F	G	H	I	J
21921	O	SER	D	472	-121.896	-36.014	37.537	1.00	46.85
21922	N	ALA	D	473	-122.121	-34.932	35.585	1.00	47.64
21923	CA	ALA	D	473	-120.978	-35.600	34.986	1.00	48.90
21924	CB	ALA	D	473	-120.887	-35.269	33.506	1.00	48.66
21925	C	ALA	D	473	-119.685	-35.206	35.712	1.00	49.86
21926	O	ALA	D	473	-118.893	-36.065	36.113	1.00	49.97
21927	N	LEU	D	474	-119.479	-33.904	35.887	1.00	50.76
21928	CA	LEU	D	474	-118.289	-33.433	36.567	1.00	51.58
21929	CB	LEU	D	474	-118.187	-31.907	36.495	1.00	51.66
21930	CG	LEU	D	474	-117.148	-31.285	37.433	1.00	51.70
21931	CD1	LEU	D	474	-115.768	-31.859	37.156	1.00	51.48
21932	CD2	LEU	D	474	-117.137	-29.783	37.282	1.00	52.13
21933	C	LEU	D	474	-118.329	-33.884	38.010	1.00	52.25
21934	O	LEU	D	474	-117.316	-34.287	38.563	1.00	52.55
21935	N	ASP	D	475	-119.510	-33.843	38.613	1.00	53.48
21936	CA	ASP	D	475	-119.647	-34.187	40.018	1.00	54.86
21937	CB	ASP	D	475	-121.095	-34.027	40.483	1.00	54.92
21938	CG	ASP	D	475	-121.202	-33.806	41.979	1.00	55.85
21939	OD1	ASP	D	475	-121.574	-34.748	42.713	1.00	56.95
21940	OD2	ASP	D	475	-120.918	-32.714	42.517	1.00	57.34
21941	C	ASP	D	475	-119.215	-35.606	40.264	1.00	55.98
21942	O	ASP	D	475	-118.685	-35.926	41.330	1.00	56.18
21943	N	LYS	D	476	-119.457	-36.456	39.269	1.00	57.23
21944	CA	LYS	D	476	-119.158	-37.876	39.380	1.00	58.53
21945	CB	LYS	D	476	-119.741	-38.661	38.190	1.00	58.87
21946	CG	LYS	D	476	-119.473	-40.166	38.263	1.00	60.86
21947	CD	LYS	D	476	-119.859	-40.902	36.975	1.00	63.70
21948	CE	LYS	D	476	-121.293	-41.443	37.037	1.00	65.24
21949	NZ	LYS	D	476	-121.512	-42.417	38.155	1.00	65.26
21950	C	LYS	D	476	-117.668	-38.111	39.478	1.00	58.65
21951	O	LYS	D	476	-117.174	-38.640	40.478	1.00	58.69
21952	N	MET	D	477	-116.949	-37.705	38.439	1.00	59.23
21953	CA	MET	D	477	-115.508	-37.926	38.402	1.00	59.66
21954	CB	MET	D	477	-114.940	-37.608	37.026	1.00	59.96
21955	CG	MET	D	477	-115.338	-36.270	36.493	1.00	60.64
21956	SD	MET	D	477	-115.119	-36.282	34.726	1.00	63.61
21957	CE	MET	D	477	-113.501	-37.031	34.565	1.00	63.14
21958	C	MET	D	477	-114.762	-37.165	39.485	1.00	59.47
21959	O	MET	D	477	-113.581	-37.411	39.712	1.00	59.77
21960	N	LEU	D	478	-115.464	-36.265	40.164	1.00	59.19
21961	CA	LEU	D	478	-114.884	-35.493	41.256	1.00	58.93
21962	CB	LEU	D	478	-115.536	-34.109	41.325	1.00	58.81
21963	CG	LEU	D	478	-114.692	-32.859	41.069	1.00	58.86
21964	CD1	LEU	D	478	-115.604	-31.684	40.734	1.00	58.24
21965	CD2	LEU	D	478	-113.647	-33.065	39.981	1.00	58.27
21966	C	LEU	D	478	-115.003	-36.159	42.623	1.00	58.92
21967	O	LEU	D	478	-114.307	-35.776	43.564	1.00	58.54
21968	N	GLN	D	479	-115.877	-37.152	42.751	1.00	59.09
21969	CA	GLN	D	479	-116.070	-37.774	44.062	1.00	59.11
21970	CB	GLN	D	479	-117.383	-38.561	44.155	1.00	59.76
21971	CG	GLN	D	479	-118.090	-38.372	45.501	1.00	61.97

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**FIGURE 3 RQ**

A	B	C	D	E	F	G	H	I	J
21972	CD	GLN	D	479	-119.030	-39.524	45.872	1.00	65.23
21973	OE1	GLN	D	479	-119.557	-40.221	44.998	1.00	66.31
21974	NE2	GLN	D	479	-119.239	-39.718	47.175	1.00	66.00
21975	C	GLN	D	479	-114.879	-38.627	44.491	1.00	58.36
21976	O	GLN	D	479	-114.691	-38.874	45.688	1.00	58.00
21977	N	ASN	D	480	-114.082	-39.087	43.528	1.00	57.24
21978	CA	ASN	D	480	-112.867	-39.798	43.901	1.00	56.76
21979	CB	ASN	D	480	-112.788	-41.226	43.325	1.00	57.18
21980	CG	ASN	D	480	-112.287	-41.266	41.893	1.00	59.21
21981	OD1	ASN	D	480	-111.793	-42.301	41.428	1.00	60.24
21982	ND2	ASN	D	480	-112.408	-40.138	41.181	1.00	61.22
21983	C	ASN	D	480	-111.606	-38.965	43.648	1.00	55.75
21984	O	ASN	D	480	-110.628	-39.431	43.069	1.00	55.51
21985	N	VAL	D	481	-111.675	-37.706	44.067	1.00	54.57
21986	CA	VAL	D	481	-110.523	-36.817	44.069	1.00	53.34
21987	CB	VAL	D	481	-110.428	-35.930	42.802	1.00	53.46
21988	CG1	VAL	D	481	-111.781	-35.649	42.243	1.00	54.08
21989	CG2	VAL	D	481	-109.673	-34.652	43.080	1.00	53.22
21990	C	VAL	D	481	-110.594	-36.009	45.353	1.00	52.30
21991	O	VAL	D	481	-111.662	-35.561	45.759	1.00	52.13
21992	N	GLN	D	482	-109.462	-35.884	46.029	1.00	51.18
21993	CA	GLN	D	482	-109.410	-35.154	47.283	1.00	49.86
21994	CB	GLN	D	482	-108.156	-35.547	48.058	1.00	49.82
21995	CG	GLN	D	482	-108.002	-37.060	48.243	1.00	49.57
21996	CD	GLN	D	482	-106.867	-37.426	49.179	1.00	49.43
21997	OE1	GLN	D	482	-107.077	-37.558	50.384	1.00	50.82
21998	NE2	GLN	D	482	-105.659	-37.583	48.632	1.00	48.75
21999	C	GLN	D	482	-109.440	-33.651	47.000	1.00	49.29
22000	O	GLN	D	482	-108.401	-32.975	46.982	1.00	49.35
22001	N	MET	D	483	-110.645	-33.144	46.758	1.00	47.92
22002	CA	MET	D	483	-110.854	-31.737	46.467	1.00	46.56
22003	CB	MET	D	483	-112.204	-31.537	45.790	1.00	46.16
22004	CG	MET	D	483	-112.260	-32.154	44.444	1.00	45.99
22005	SD	MET	D	483	-111.154	-31.322	43.334	1.00	45.71
22006	CE	MET	D	483	-112.226	-30.069	42.717	1.00	43.82
22007	C	MET	D	483	-110.806	-30.911	47.732	1.00	45.76
22008	O	MET	D	483	-111.243	-31.360	48.796	1.00	45.75
22009	N	PRO	D	484	-110.291	-29.692	47.605	1.00	44.73
22010	CA	PRO	D	484	-110.197	-28.767	48.737	1.00	44.12
22011	CB	PRO	D	484	-109.288	-27.666	48.201	1.00	44.11
22012	CG	PRO	D	484	-109.485	-27.686	46.732	1.00	43.89
22013	CD	PRO	D	484	-109.759	-29.113	46.361	1.00	44.68
22014	C	PRO	D	484	-111.550	-28.172	49.044	1.00	43.51
22015	O	PRO	D	484	-112.436	-28.225	48.197	1.00	43.84
22016	N	SER	D	485	-111.722	-27.612	50.231	1.00	42.90
22017	CA	SER	D	485	-112.970	-26.908	50.509	1.00	42.75
22018	CB	SER	D	485	-113.632	-27.391	51.812	1.00	42.78
22019	OG	SER	D	485	-113.176	-26.684	52.952	1.00	43.62
22020	C	SER	D	485	-112.750	-25.386	50.498	1.00	42.19
22021	O	SER	D	485	-111.632	-24.893	50.312	1.00	41.86
22022	N	LYS	D	486	-113.827	-24.640	50.693	1.00	41.74

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**FIGURE 3 RR**

A	B	C	D	E	F	G	H	I	J
22023	CA	LYS	D	486	-113.741	-23.195	50.686	1.00	40.78
22024	CB	LYS	D	486	-114.442	-22.654	49.452	1.00	40.90
22025	CG	LYS	D	486	-113.909	-21.320	48.975	1.00	41.55
22026	CD	LYS	D	486	-115.021	-20.426	48.472	1.00	40.25
22027	CE	LYS	D	486	-114.611	-19.660	47.244	1.00	39.87
22028	NZ	LYS	D	486	-115.636	-18.663	46.873	1.00	39.43
22029	C	LYS	D	486	-114.405	-22.643	51.925	1.00	40.36
22030	O	LYS	D	486	-115.550	-22.959	52.210	1.00	41.08
22031	N	LYS	D	487	-113.690	-21.828	52.674	1.00	39.57
22032	CA	LYS	D	487	-114.273	-21.202	53.839	1.00	39.62
22033	CB	LYS	D	487	-113.408	-21.440	55.084	1.00	39.82
22034	CG	LYS	D	487	-113.183	-20.201	55.917	1.00	41.25
22035	CD	LYS	D	487	-113.978	-20.210	57.219	1.00	43.92
22036	CE	LYS	D	487	-113.064	-20.381	58.418	1.00	45.08
22037	NZ	LYS	D	487	-113.720	-19.919	59.680	1.00	46.72
22038	C	LYS	D	487	-114.409	-19.720	53.518	1.00	39.47
22039	O	LYS	D	487	-113.460	-19.069	53.073	1.00	39.19
22040	N	LEU	D	488	-115.612	-19.204	53.694	1.00	39.33
22041	CA	LEU	D	488	-115.901	-17.821	53.388	1.00	39.38
22042	CB	LEU	D	488	-116.982	-17.730	52.315	1.00	38.75
22043	CG	LEU	D	488	-117.483	-16.321	52.013	1.00	38.45
22044	CD1	LEU	D	488	-116.420	-15.484	51.271	1.00	35.08
22045	CD2	LEU	D	488	-118.762	-16.400	51.225	1.00	35.39
22046	C	LEU	D	488	-116.371	-17.176	54.670	1.00	40.14
22047	O	LEU	D	488	-117.465	-17.446	55.153	1.00	39.95
22048	N	ASP	D	489	-115.528	-16.332	55.236	1.00	40.97
22049	CA	ASP	D	489	-115.842	-15.747	56.514	1.00	42.21
22050	CB	ASP	D	489	-115.194	-16.578	57.625	1.00	42.33
22051	CG	ASP	D	489	-116.020	-16.614	58.877	1.00	43.32
22052	OD1	ASP	D	489	-115.962	-17.644	59.590	1.00	46.30
22053	OD2	ASP	D	489	-116.772	-15.677	59.223	1.00	43.96
22054	C	ASP	D	489	-115.302	-14.331	56.543	1.00	42.65
22055	O	ASP	D	489	-114.798	-13.834	55.547	1.00	42.81
22056	N	PHE	D	490	-115.384	-13.692	57.697	1.00	43.33
22057	CA	PHE	D	490	-114.902	-12.341	57.811	1.00	44.25
22058	CB	PHE	D	490	-116.082	-11.381	57.802	1.00	44.26
22059	CG	PHE	D	490	-117.097	-11.679	58.855	1.00	45.55
22060	CD1	PHE	D	490	-118.185	-12.488	58.574	1.00	46.52
22061	CE1	PHE	D	490	-119.128	-12.771	59.548	1.00	47.79
22062	CZ	PHE	D	490	-118.981	-12.250	60.831	1.00	47.73
22063	CE2	PHE	D	490	-117.895	-11.451	61.124	1.00	48.42
22064	CD2	PHE	D	490	-116.956	-11.167	60.133	1.00	47.31
22065	C	PHE	D	490	-114.130	-12.170	59.097	1.00	44.63
22066	O	PHE	D	490	-114.258	-12.977	60.012	1.00	44.70
22067	N	ILE	D	491	-113.310	-11.125	59.150	1.00	45.06
22068	CA	ILE	D	491	-112.630	-10.758	60.380	1.00	45.82
22069	CB	ILE	D	491	-111.106	-10.848	60.269	1.00	45.63
22070	CG1	ILE	D	491	-110.586	-9.894	59.195	1.00	44.97
22071	CD1	ILE	D	491	-109.118	-9.597	59.301	1.00	44.84
22072	CG2	ILE	D	491	-110.678	-12.279	60.010	1.00	45.05
22073	C	ILE	D	491	-113.051	-9.339	60.668	1.00	46.97

**REPLACEMENT SHEET**  
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**FIGURE 3 RS**

A	B	C	D	E	F	G	H	I	J
22074	O	ILE	D	491	-113.623	-8.662	59.805	1.00	47.13
22075	N	ILE	D	492	-112.785	-8.880	61.878	1.00	48.24
22076	CA	ILE	D	492	-113.196	-7.539	62.257	1.00	49.65
22077	CB	ILE	D	492	-114.083	-7.594	63.515	1.00	49.69
22078	CG1	ILE	D	492	-115.388	-8.340	63.227	1.00	50.20
22079	CD1	ILE	D	492	-116.570	-7.802	64.028	1.00	51.67
22080	CG2	ILE	D	492	-114.407	-6.194	63.986	1.00	50.11
22081	C	ILE	D	492	-111.975	-6.650	62.469	1.00	50.37
22082	O	ILE	D	492	-111.155	-6.918	63.349	1.00	50.50
22083	N	LEU	D	493	-111.854	-5.601	61.652	1.00	51.54
22084	CA	LEU	D	493	-110.694	-4.701	61.712	1.00	52.52
22085	CB	LEU	D	493	-110.184	-4.341	60.317	1.00	52.24
22086	CG	LEU	D	493	-108.912	-5.146	60.058	1.00	52.45
22087	CD1	LEU	D	493	-108.680	-5.458	58.593	1.00	51.55
22088	CD2	LEU	D	493	-108.969	-6.428	60.879	1.00	53.26
22089	C	LEU	D	493	-110.868	-3.466	62.603	1.00	53.48
22090	O	LEU	D	493	-110.905	-3.595	63.823	1.00	53.92
22091	N	ASN	D	494	-110.922	-2.258	62.057	1.00	54.20
22092	CA	ASN	D	494	-111.136	-1.164	62.993	1.00	54.48
22093	CB	ASN	D	494	-111.206	0.200	62.314	1.00	55.01
22094	CG	ASN	D	494	-109.883	0.958	62.401	1.00	56.92
22095	OD1	ASN	D	494	-109.450	1.342	63.490	1.00	59.72
22096	ND2	ASN	D	494	-109.236	1.170	61.260	1.00	58.60
22097	C	ASN	D	494	-112.398	-1.541	63.762	1.00	54.11
22098	O	ASN	D	494	-112.324	-2.095	64.861	1.00	54.46
22099	N	GLU	D	495	-113.557	-1.298	63.174	1.00	53.65
22100	CA	GLU	D	495	-114.784	-1.772	63.787	1.00	53.11
22101	CB	GLU	D	495	-115.612	-0.612	64.336	1.00	54.09
22102	CG	GLU	D	495	-116.551	-1.027	65.455	1.00	56.83
22103	CD	GLU	D	495	-115.815	-1.225	66.764	1.00	60.74
22104	OE1	GLU	D	495	-115.353	-0.204	67.326	1.00	62.68
22105	OE2	GLU	D	495	-115.693	-2.390	67.228	1.00	62.25
22106	C	GLU	D	495	-115.573	-2.506	62.726	1.00	51.60
22107	O	GLU	D	495	-116.674	-2.987	62.984	1.00	51.96
22108	N	THR	D	496	-114.997	-2.607	61.532	1.00	49.33
22109	CA	THR	D	496	-115.736	-3.155	60.404	1.00	46.76
22110	CB	THR	D	496	-115.643	-2.205	59.174	1.00	46.89
22111	CG1	THR	D	496	-114.334	-2.268	58.610	1.00	47.10
22112	CG2	THR	D	496	-115.760	-0.750	59.604	1.00	46.58
22113	C	THR	D	496	-115.414	-4.596	60.007	1.00	44.94
22114	O	THR	D	496	-114.310	-5.103	60.190	1.00	44.71
22115	N	LYS	D	497	-116.432	-5.229	59.450	1.00	42.85
22116	CA	LYS	D	497	-116.389	-6.584	58.954	1.00	40.72
22117	CB	LYS	D	497	-117.838	-7.010	58.705	1.00	41.43
22118	CG	LYS	D	497	-118.239	-8.401	59.150	1.00	43.19
22119	CD	LYS	D	497	-119.544	-8.317	59.940	1.00	44.70
22120	CE	LYS	D	497	-120.511	-9.436	59.581	1.00	46.88
22121	NZ	LYS	D	497	-121.826	-9.209	60.266	1.00	47.14
22122	C	LYS	D	497	-115.664	-6.549	57.618	1.00	38.35
22123	O	LYS	D	497	-116.027	-5.783	56.745	1.00	38.22
22124	N	PHE	D	498	-114.630	-7.357	57.464	1.00	35.89

**REPLACEMENT SHEET**  
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**FIGURE 3 RT**

A	B	C	D	E	F	G	H	I	J
22125	CA	PHE	D	498	-113.940	-7.479	56.194	1.00	33.69
22126	CB	PHE	D	498	-112.538	-6.882	56.251	1.00	33.54
22127	CG	PHE	D	498	-112.530	-5.388	56.233	1.00	33.09
22128	CD1	PHE	D	498	-112.820	-4.705	55.075	1.00	32.69
22129	CE1	PHE	D	498	-112.833	-3.318	55.052	1.00	32.08
22130	CZ	PHE	D	498	-112.555	-2.609	56.197	1.00	33.54
22131	CE2	PHE	D	498	-112.269	-3.286	57.373	1.00	32.77
22132	CD2	PHE	D	498	-112.263	-4.665	57.386	1.00	32.47
22133	C	PHE	D	498	-113.892	-8.949	55.889	1.00	32.73
22134	O	PHE	D	498	-113.480	-9.749	56.735	1.00	32.65
22135	N	TRP	D	499	-114.311	-9.299	54.681	1.00	31.63
22136	CA	TRP	D	499	-114.424	-10.691	54.261	1.00	31.01
22137	CB	TRP	D	499	-115.607	-10.847	53.308	1.00	31.14
22138	CG	TRP	D	499	-116.912	-10.612	53.987	1.00	31.28
22139	CD1	TRP	D	499	-117.454	-9.408	54.333	1.00	30.35
22140	NE1	TRP	D	499	-118.661	-9.597	54.962	1.00	31.03
22141	CE2	TRP	D	499	-118.916	-10.944	55.037	1.00	32.13
22142	CD2	TRP	D	499	-117.832	-11.610	54.434	1.00	31.56
22143	CE3	TRP	D	499	-117.848	-13.007	54.390	1.00	33.17
22144	CZ3	TRP	D	499	-118.930	-13.683	54.927	1.00	32.84
22145	CH2	TRP	D	499	-119.996	-12.986	55.513	1.00	32.25
22146	CZ2	TRP	D	499	-120.010	-11.625	55.573	1.00	31.84
22147	C	TRP	D	499	-113.190	-11.274	53.607	1.00	30.65
22148	O	TRP	D	499	-112.428	-10.574	52.949	1.00	30.69
22149	N	TYR	D	500	-113.016	-12.580	53.789	1.00	30.45
22150	CA	TYR	D	500	-111.914	-13.302	53.214	1.00	30.20
22151	CB	TYR	D	500	-110.790	-13.445	54.234	1.00	30.96
22152	CG	TYR	D	500	-111.094	-14.361	55.402	1.00	30.58
22153	CD1	TYR	D	500	-110.852	-15.720	55.309	1.00	31.42
22154	CE1	TYR	D	500	-111.109	-16.571	56.357	1.00	32.91
22155	CZ	TYR	D	500	-111.616	-16.073	57.542	1.00	34.02
22156	OH	TYR	D	500	-111.857	-16.968	58.578	1.00	34.89
22157	CE2	TYR	D	500	-111.865	-14.708	57.673	1.00	31.52
22158	CD2	TYR	D	500	-111.603	-13.863	56.600	1.00	31.02
22159	C	TYR	D	500	-112.409	-14.666	52.843	1.00	30.46
22160	O	TYR	D	500	-113.439	-15.104	53.346	1.00	30.38
22161	N	GLN	D	501	-111.685	-15.327	51.943	1.00	30.25
22162	CA	GLN	D	501	-111.965	-16.706	51.593	1.00	29.73
22163	CB	GLN	D	501	-112.640	-16.824	50.227	1.00	29.03
22164	CG	GLN	D	501	-111.724	-16.668	49.024	1.00	26.43
22165	CD	GLN	D	501	-112.467	-16.885	47.703	1.00	23.64
22166	OE1	GLN	D	501	-113.668	-16.622	47.614	1.00	21.69
22167	NE2	GLN	D	501	-111.759	-17.360	46.689	1.00	19.81
22168	C	GLN	D	501	-110.653	-17.494	51.648	1.00	30.51
22169	O	GLN	D	501	-109.569	-16.928	51.534	1.00	30.08
22170	N	MET	D	502	-110.766	-18.797	51.877	1.00	31.53
22171	CA	MET	D	502	-109.622	-19.682	51.953	1.00	32.54
22172	CB	MET	D	502	-109.324	-20.061	53.404	1.00	32.70
22173	CG	MET	D	502	-108.513	-19.042	54.188	1.00	34.45
22174	SD	MET	D	502	-108.298	-19.546	55.914	1.00	35.68
22175	CE	MET	D	502	-107.112	-18.330	56.520	1.00	34.73



**REPLACEMENT SHEET**  
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**FIGURE 3 RU**

A	B	C	D	E	F	G	H	I	J
22176	C	MET	D	502	-109.930	-20.951	51.188	1.00	33.44
22177	O	MET	D	502	-110.969	-21.568	51.401	1.00	33.39
22178	N	ILE	D	503	-109.043	-21.321	50.276	1.00	34.24
22179	CA	ILE	D	503	-109.140	-22.600	49.625	1.00	35.32
22180	CB	ILE	D	503	-108.522	-22.555	48.237	1.00	35.54
22181	CG1	ILE	D	503	-109.022	-21.318	47.470	1.00	35.46
22182	CD1	ILE	D	503	-110.530	-21.194	47.404	1.00	34.04
22183	CG2	ILE	D	503	-108.834	-23.835	47.467	1.00	34.63
22184	C	ILE	D	503	-108.339	-23.510	50.541	1.00	36.69
22185	O	ILE	D	503	-107.110	-23.450	50.581	1.00	36.53
22186	N	LEU	D	504	-109.044	-24.332	51.313	1.00	38.09
22187	CA	LEU	D	504	-108.397	-25.207	52.279	1.00	38.64
22188	CB	LEU	D	504	-109.299	-25.379	53.491	1.00	38.53
22189	CG	LEU	D	504	-109.571	-24.066	54.222	1.00	38.04
22190	CD1	LEU	D	504	-110.703	-24.193	55.242	1.00	36.84
22191	CD2	LEU	D	504	-108.285	-23.587	54.884	1.00	38.21
22192	C	LEU	D	504	-108.071	-26.551	51.688	1.00	39.40
22193	O	LEU	D	504	-108.885	-27.132	50.983	1.00	39.88
22194	N	PRO	D	505	-106.857	-27.021	51.937	1.00	40.67
22195	CA	PRO	D	505	-106.436	-28.366	51.525	1.00	41.89
22196	CB	PRO	D	505	-105.048	-28.497	52.153	1.00	41.89
22197	CG	PRO	D	505	-104.568	-27.097	52.306	1.00	41.09
22198	CD	PRO	D	505	-105.777	-26.277	52.611	1.00	40.38
22199	C	PRO	D	505	-107.348	-29.432	52.129	1.00	43.15
22200	O	PRO	D	505	-107.765	-29.284	53.282	1.00	42.92
22201	N	PRO	D	506	-107.661	-30.471	51.359	1.00	44.38
22202	CA	PRO	D	506	-108.512	-31.576	51.821	1.00	45.63
22203	CB	PRO	D	506	-108.338	-32.628	50.713	1.00	45.81
22204	CG	PRO	D	506	-107.133	-32.141	49.920	1.00	44.97
22205	CD	PRO	D	506	-107.248	-30.661	49.959	1.00	44.76
22206	C	PRO	D	506	-108.060	-32.138	53.167	1.00	46.50
22207	O	PRO	D	506	-106.859	-32.206	53.420	1.00	46.58
22208	N	HIS	D	507	-109.010	-32.515	54.019	1.00	47.48
22209	CA	HIS	D	507	-108.696	-33.051	55.351	1.00	48.38
22210	CB	HIS	D	507	-107.775	-34.271	55.253	1.00	48.50
22211	CG	HIS	D	507	-108.183	-35.249	54.192	1.00	49.31
22212	ND1	HIS	D	507	-109.479	-35.702	54.053	1.00	49.86
22213	CE1	HIS	D	507	-109.546	-36.537	53.031	1.00	50.44
22214	NE2	HIS	D	507	-108.339	-36.645	52.503	1.00	50.57
22215	CD2	HIS	D	507	-107.468	-35.851	53.211	1.00	49.82
22216	C	HIS	D	507	-108.062	-31.971	56.218	1.00	48.86
22217	O	HIS	D	507	-107.338	-32.255	57.172	1.00	49.17
22218	N	PHE	D	508	-108.343	-30.722	55.873	1.00	49.26
22219	CA	PHE	D	508	-107.828	-29.590	56.615	1.00	49.25
22220	CB	PHE	D	508	-108.662	-28.344	56.310	1.00	49.03
22221	CG	PHE	D	508	-108.251	-27.149	57.094	1.00	48.15
22222	CD1	PHE	D	508	-106.923	-26.739	57.106	1.00	47.86
22223	CE1	PHE	D	508	-106.521	-25.648	57.837	1.00	46.02
22224	CZ	PHE	D	508	-107.452	-24.943	58.556	1.00	48.39
22225	CE2	PHE	D	508	-108.790	-25.342	58.553	1.00	48.71
22226	CD2	PHE	D	508	-109.178	-26.443	57.828	1.00	47.35

**REPLACEMENT SHEET**  
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**FIGURE 3 RV**

A	B	C	D	E	F	G	H	I	J
22227	C	PHE	D	508	-107.857	-29.910	58.101	1.00	49.48
22228	O	PHE	D	508	-108.861	-30.396	58.617	1.00	49.51
22229	N	ASP	D	509	-106.754	-29.620	58.780	1.00	49.87
22230	CA	ASP	D	509	-106.582	-29.939	60.196	1.00	50.47
22231	CB	ASP	D	509	-105.602	-31.119	60.309	1.00	50.55
22232	CG	ASP	D	509	-105.216	-31.460	61.747	1.00	50.89
22233	OD1	ASP	D	509	-105.729	-30.849	62.708	1.00	51.30
22234	OD2	ASP	D	509	-104.389	-32.353	62.003	1.00	50.81
22235	C	ASP	D	509	-106.055	-28.715	60.937	1.00	50.61
22236	O	ASP	D	509	-104.914	-28.329	60.762	1.00	51.02
22237	N	LYS	D	510	-106.884	-28.115	61.778	1.00	51.30
22238	CA	LYS	D	510	-106.497	-26.912	62.511	1.00	51.94
22239	CB	LYS	D	510	-107.683	-26.370	63.308	1.00	52.13
22240	CG	LYS	D	510	-108.946	-26.229	62.476	1.00	53.76
22241	CD	LYS	D	510	-109.630	-27.587	62.196	1.00	55.82
22242	CE	LYS	D	510	-110.779	-27.432	61.182	1.00	56.53
22243	NZ	LYS	D	510	-111.306	-28.726	60.657	1.00	56.25
22244	C	LYS	D	510	-105.274	-27.117	63.414	1.00	51.89
22245	O	LYS	D	510	-104.624	-26.139	63.823	1.00	52.13
22246	N	SER	D	511	-104.987	-28.385	63.718	1.00	51.76
22247	CA	SER	D	511	-103.810	-28.790	64.483	1.00	51.57
22248	CB	SER	D	511	-103.806	-30.326	64.722	1.00	51.56
22249	OG	SER	D	511	-104.808	-30.721	65.636	1.00	52.43
22250	C	SER	D	511	-102.566	-28.441	63.678	1.00	50.79
22251	O	SER	D	511	-101.568	-27.977	64.221	1.00	50.95
22252	N	LYS	D	512	-102.631	-28.712	62.376	1.00	49.63
22253	CA	LYS	D	512	-101.477	-28.545	61.486	1.00	48.88
22254	CB	LYS	D	512	-101.690	-29.310	60.170	1.00	48.91
22255	CG	LYS	D	512	-101.353	-30.796	60.237	1.00	49.94
22256	CD	LYS	D	512	-101.394	-31.479	58.853	1.00	50.87
22257	CE	LYS	D	512	-100.707	-32.853	58.905	1.00	52.87
22258	NZ	LYS	D	512	-101.267	-33.870	57.941	1.00	54.85
22259	C	LYS	D	512	-101.101	-27.094	61.188	1.00	47.84
22260	O	LYS	D	512	-101.847	-26.163	61.472	1.00	47.97
22261	N	LYS	D	513	-99.920	-26.902	60.627	1.00	46.79
22262	CA	LYS	D	513	-99.504	-25.558	60.251	1.00	45.61
22263	CB	LYS	D	513	-98.282	-25.121	61.044	1.00	45.55
22264	CG	LYS	D	513	-98.603	-24.846	62.497	1.00	46.64
22265	CD	LYS	D	513	-97.743	-23.746	63.075	1.00	46.94
22266	CE	LYS	D	513	-98.316	-23.259	64.399	1.00	49.00
22267	NZ	LYS	D	513	-98.235	-21.737	64.532	1.00	49.85
22268	C	LYS	D	513	-99.255	-25.524	58.757	1.00	44.59
22269	O	LYS	D	513	-98.264	-26.061	58.267	1.00	44.12
22270	N	TYR	D	514	-100.171	-24.908	58.020	1.00	43.69
22271	CA	TYR	D	514	-100.033	-24.916	56.570	1.00	43.23
22272	CB	TYR	D	514	-101.392	-25.021	55.892	1.00	43.28
22273	CG	TYR	D	514	-102.168	-26.271	56.231	1.00	43.54
22274	CD1	TYR	D	514	-102.218	-27.332	55.351	1.00	43.92
22275	CE1	TYR	D	514	-102.933	-28.470	55.649	1.00	45.73
22276	CZ	TYR	D	514	-103.620	-28.556	56.841	1.00	45.89
22277	OH	TYR	D	514	-104.330	-29.691	57.133	1.00	46.74

**REPLACEMENT SHEET**  
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**FIGURE 3 RW**

A	B	C	D	E	F	G	H	I	J
22278	CE2	TYR	D	514	-103.587	-27.518	57.736	1.00	45.40
22279	CD2	TYR	D	514	-102.862	-26.379	57.427	1.00	44.60
22280	C	TYR	D	514	-99.290	-23.724	56.006	1.00	42.59
22281	O	TYR	D	514	-99.399	-22.611	56.514	1.00	42.05
22282	N	PRO	D	515	-98.513	-23.982	54.960	1.00	42.36
22283	CA	PRO	D	515	-97.865	-22.922	54.202	1.00	42.34
22284	CB	PRO	D	515	-97.008	-23.697	53.213	1.00	42.20
22285	CG	PRO	D	515	-97.773	-24.933	53.041	1.00	42.49
22286	CD	PRO	D	515	-98.160	-25.310	54.438	1.00	42.14
22287	C	PRO	D	515	-98.949	-22.201	53.431	1.00	42.45
22288	O	PRO	D	515	-100.132	-22.569	53.429	1.00	41.35
22289	OXT	PRO	D	515	-98.641	-21.219	52.766	1.00	43.57
22290	N	LEU	D	516	-98.960	-20.077	53.844	1.00	31.95
22291	CA	LEU	D	516	-100.197	-19.740	53.113	1.00	30.92
22292	CB	LEU	D	516	-101.122	-18.957	54.031	1.00	31.48
22293	CG	LEU	D	516	-102.410	-18.366	53.469	1.00	32.65
22294	CD1	LEU	D	516	-102.137	-16.938	53.024	1.00	34.39
22295	CD2	LEU	D	516	-103.453	-18.376	54.569	1.00	33.16
22296	C	LEU	D	516	-99.794	-18.924	51.899	1.00	30.86
22297	O	LEU	D	516	-98.681	-18.396	51.840	1.00	30.71
22298	N	LEU	D	517	-100.685	-18.880	50.912	1.00	29.90
22299	CA	LEU	D	517	-100.508	-18.081	49.728	1.00	28.83
22300	CB	LEU	D	517	-100.500	-18.953	48.473	1.00	28.59
22301	CG	LEU	D	517	-100.426	-18.150	47.174	1.00	29.21
22302	CD1	LEU	D	517	-100.439	-19.035	45.925	1.00	27.67
22303	CD2	LEU	D	517	-99.206	-17.196	47.170	1.00	28.21
22304	C	LEU	D	517	-101.673	-17.098	49.668	1.00	28.95
22305	O	LEU	D	517	-102.843	-17.503	49.539	1.00	28.88
22306	N	LEU	D	518	-101.349	-15.810	49.777	1.00	28.01
22307	CA	LEU	D	518	-102.338	-14.745	49.681	1.00	27.58
22308	CB	LEU	D	518	-101.879	-13.519	50.470	1.00	27.31
22309	CG	LEU	D	518	-102.951	-12.446	50.616	1.00	28.02
22310	CD1	LEU	D	518	-104.293	-13.056	51.060	1.00	27.01
22311	CD2	LEU	D	518	-102.494	-11.371	51.585	1.00	29.52
22312	C	LEU	D	518	-102.589	-14.375	48.211	1.00	27.23
22313	O	LEU	D	518	-101.708	-13.849	47.524	1.00	26.48
22314	N	ASP	D	519	-103.794	-14.677	47.733	1.00	27.06
22315	CA	ASP	D	519	-104.181	-14.391	46.350	1.00	27.13
22316	CB	ASP	D	519	-105.190	-15.442	45.858	1.00	27.78
22317	CG	ASP	D	519	-105.558	-15.257	44.394	1.00	29.59
22318	OD1	ASP	D	519	-106.065	-16.214	43.791	1.00	26.91
22319	OD2	ASP	D	519	-105.351	-14.191	43.764	1.00	33.79
22320	C	ASP	D	519	-104.808	-13.000	46.324	1.00	26.13
22321	O	ASP	D	519	-105.915	-12.827	46.806	1.00	25.43
22322	N	VAL	D	520	-104.094	-12.008	45.787	1.00	25.46
22323	CA	VAL	D	520	-104.589	-10.646	45.858	1.00	24.15
22324	CB	VAL	D	520	-103.584	-9.692	46.605	1.00	24.63
22325	CG1	VAL	D	520	-102.264	-9.584	45.883	1.00	24.11
22326	CG2	VAL	D	520	-104.178	-8.316	46.774	1.00	23.64
22327	C	VAL	D	520	-104.935	-9.991	44.553	1.00	23.88
22328	O	VAL	D	520	-104.271	-10.204	43.532	1.00	23.79

**REPLACEMENT SHEET**  
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**FIGURE 3 RX**

A	B	C	D	E	F	G	H	I	J
22329	N	TYR	D	521	-105.996	-9.187	44.585	1.00	23.58
22330	CA	TYR	D	521	-106.262	-8.275	43.485	1.00	22.82
22331	CB	TYR	D	521	-107.542	-8.584	42.725	1.00	23.10
22332	CG	TYR	D	521	-107.669	-7.674	41.510	1.00	24.19
22333	CD1	TYR	D	521	-108.651	-6.681	41.453	1.00	22.84
22334	CE1	TYR	D	521	-108.755	-5.837	40.348	1.00	25.15
22335	CZ	TYR	D	521	-107.842	-5.969	39.300	1.00	25.26
22336	OH	TYR	D	521	-107.905	-5.133	38.220	1.00	26.53
22337	CE2	TYR	D	521	-106.864	-6.943	39.333	1.00	25.44
22338	CD2	TYR	D	521	-106.773	-7.787	40.441	1.00	24.42
22339	C	TYR	D	521	-106.306	-6.906	44.122	1.00	22.83
22340	O	TYR	D	521	-105.392	-6.084	43.946	1.00	23.01
22341	N	ALA	D	522	-107.371	-6.662	44.863	1.00	22.47
22342	CA	ALA	D	522	-107.460	-5.494	45.727	1.00	22.89
22343	CB	ALA	D	522	-106.274	-5.457	46.713	1.00	22.69
22344	C	ALA	D	522	-107.590	-4.161	45.031	1.00	23.27
22345	O	ALA	D	522	-107.339	-3.122	45.656	1.00	23.27
22346	N	GLY	D	523	-107.964	-4.179	43.754	1.00	23.25
22347	CA	GLY	D	523	-108.228	-2.941	43.044	1.00	23.46
22348	C	GLY	D	523	-109.525	-2.363	43.562	1.00	23.53
22349	O	GLY	D	523	-110.302	-3.045	44.218	1.00	24.01
22350	N	PRO	D	524	-109.779	-1.101	43.270	1.00	23.81
22351	CA	PRO	D	524	-111.034	-0.464	43.701	1.00	23.35
22352	CB	PRO	D	524	-110.958	0.924	43.088	1.00	22.72
22353	CG	PRO	D	524	-109.504	1.158	42.890	1.00	23.47
22354	CD	PRO	D	524	-108.893	-0.175	42.545	1.00	23.33
22355	C	PRO	D	524	-112.257	-1.215	43.206	1.00	23.56
22356	O	PRO	D	524	-112.310	-1.632	42.045	1.00	22.25
22357	N	CYS	D	525	-113.213	-1.396	44.123	1.00	23.85
22358	CA	CYS	D	525	-114.442	-2.133	43.883	1.00	24.64
22359	CB	CYS	D	525	-115.325	-1.457	42.816	1.00	24.68
22360	SG	CYS	D	525	-117.079	-1.893	42.910	1.00	27.11
22361	C	CYS	D	525	-114.201	-3.605	43.551	1.00	24.37
22362	O	CYS	D	525	-115.053	-4.260	43.009	1.00	25.04
22363	N	SER	D	526	-113.047	-4.137	43.884	1.00	24.74
22364	CA	SER	D	526	-112.831	-5.541	43.611	1.00	25.47
22365	CB	SER	D	526	-111.353	-5.879	43.649	1.00	25.00
22366	OG	SER	D	526	-110.870	-5.697	44.965	1.00	26.65
22367	C	SER	D	526	-113.539	-6.373	44.674	1.00	25.58
22368	O	SER	D	526	-114.006	-5.853	45.694	1.00	25.12
22369	N	GLN	D	527	-113.597	-7.665	44.408	1.00	25.65
22370	CA	GLN	D	527	-114.135	-8.629	45.318	1.00	26.62
22371	CB	GLN	D	527	-115.634	-8.825	45.097	1.00	26.82
22372	CG	GLN	D	527	-116.280	-9.642	46.207	1.00	27.95
22373	CD	GLN	D	527	-117.803	-9.657	46.152	1.00	28.44
22374	OE1	GLN	D	527	-118.407	-10.192	45.204	1.00	28.61
22375	NE2	GLN	D	527	-118.424	-9.077	47.166	1.00	27.33
22376	C	GLN	D	527	-113.434	-9.907	44.989	1.00	27.21
22377	O	GLN	D	527	-113.576	-10.406	43.888	1.00	27.15
22378	N	LYS	D	528	-112.661	-10.430	45.934	1.00	28.38
22379	CA	LYS	D	528	-111.977	-11.690	45.740	1.00	29.21

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**FIGURE 3 RY**

A	B	C	D	E	F	G	H	I	J
22380	CB	LYS	D	528	-110.469	-11.517	45.892	1.00	29.88
22381	CG	LYS	D	528	-109.811	-10.599	44.854	1.00	31.00
22382	CD	LYS	D	528	-109.819	-11.175	43.455	1.00	29.85
22383	CE	LYS	D	528	-109.210	-12.545	43.375	1.00	32.75
22384	NZ	LYS	D	528	-107.963	-12.709	44.124	1.00	32.18
22385	C	LYS	D	528	-112.482	-12.710	46.743	1.00	29.69
22386	O	LYS	D	528	-112.047	-13.844	46.746	1.00	28.93
22387	N	ALA	D	529	-113.362	-12.293	47.641	1.00	31.26
22388	CA	ALA	D	529	-113.948	-13.252	48.571	1.00	32.56
22389	CB	ALA	D	529	-113.970	-12.708	49.973	1.00	32.17
22390	C	ALA	D	529	-115.357	-13.498	48.054	1.00	33.38
22391	O	ALA	D	529	-116.234	-12.672	48.299	1.00	33.84
22392	N	ASP	D	530	-115.536	-14.607	47.319	1.00	34.00
22393	CA	ASP	D	530	-116.783	-14.967	46.606	1.00	35.36
22394	CB	ASP	D	530	-116.490	-15.349	45.126	1.00	35.29
22395	CG	ASP	D	530	-115.969	-14.213	44.287	1.00	38.56
22396	OD1	ASP	D	530	-116.423	-14.084	43.138	1.00	41.15
22397	OD2	ASP	D	530	-115.062	-13.420	44.632	1.00	45.19
22398	C	ASP	D	530	-117.403	-16.253	47.157	1.00	34.96
22399	O	ASP	D	530	-116.764	-16.985	47.886	1.00	35.34
22400	N	THR	D	531	-118.630	-16.553	46.741	1.00	34.45
22401	CA	THR	D	531	-119.231	-17.849	47.016	1.00	34.17
22402	CB	THR	D	531	-120.712	-17.756	47.493	1.00	34.07
22403	OG1	THR	D	531	-121.523	-17.144	46.477	1.00	34.32
22404	CG2	THR	D	531	-120.866	-16.824	48.689	1.00	33.95
22405	C	THR	D	531	-119.205	-18.586	45.695	1.00	34.05
22406	O	THR	D	531	-120.026	-19.455	45.466	1.00	33.61
22407	N	VAL	D	532	-118.288	-18.198	44.807	1.00	33.97
22408	CA	VAL	D	532	-118.193	-18.819	43.487	1.00	33.24
22409	CB	VAL	D	532	-117.643	-17.840	42.418	1.00	33.74
22410	CG1	VAL	D	532	-117.397	-18.559	41.073	1.00	31.82
22411	CG2	VAL	D	532	-118.593	-16.654	42.224	1.00	32.78
22412	C	VAL	D	532	-117.344	-20.082	43.507	1.00	33.28
22413	O	VAL	D	532	-116.378	-20.193	44.268	1.00	32.79
22414	N	PHE	D	533	-117.723	-21.039	42.667	1.00	33.08
22415	CA	PHE	D	533	-116.998	-22.291	42.566	1.00	32.91
22416	CB	PHE	D	533	-117.936	-23.465	42.297	1.00	33.19
22417	CG	PHE	D	533	-117.209	-24.742	42.033	1.00	33.43
22418	CD1	PHE	D	533	-116.675	-25.468	43.079	1.00	33.91
22419	CE1	PHE	D	533	-115.974	-26.632	42.848	1.00	33.49
22420	CZ	PHE	D	533	-115.793	-27.068	41.569	1.00	33.77
22421	CE2	PHE	D	533	-116.305	-26.341	40.509	1.00	35.32
22422	CD2	PHE	D	533	-116.999	-25.180	40.743	1.00	33.72
22423	C	PHE	D	533	-116.028	-22.207	41.428	1.00	32.73
22424	O	PHE	D	533	-116.404	-21.924	40.304	1.00	32.88
22425	N	ARG	D	534	-114.773	-22.493	41.703	1.00	33.21
22426	CA	ARG	D	534	-113.764	-22.376	40.675	1.00	33.45
22427	CB	ARG	D	534	-112.917	-21.111	40.906	1.00	34.03
22428	CG	ARG	D	534	-113.685	-19.780	40.894	1.00	33.35
22429	CD	ARG	D	534	-112.769	-18.543	40.923	1.00	33.39
22430	NE	ARG	D	534	-113.530	-17.303	40.775	1.00	32.63

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**FIGURE 3 RZ**

A	B	C	D	E	F	G	H	I	J
22431	CZ	ARG	D	534	-114.159	-16.700	41.771	1.00	30.97
22432	NH1	ARG	D	534	-114.862	-15.592	41.543	1.00	30.56
22433	NH2	ARG	D	534	-114.100	-17.216	42.991	1.00	27.55
22434	C	ARG	D	534	-112.844	-23.578	40.649	1.00	33.45
22435	O	ARG	D	534	-112.604	-24.228	41.670	1.00	33.84
22436	N	LEU	D	535	-112.347	-23.869	39.459	1.00	32.92
22437	CA	LEU	D	535	-111.330	-24.873	39.276	1.00	32.75
22438	CB	LEU	D	535	-111.794	-25.967	38.330	1.00	33.22
22439	CG	LEU	D	535	-113.001	-26.703	38.907	1.00	34.43
22440	CD1	LEU	D	535	-113.453	-27.749	37.909	1.00	36.11
22441	CD2	LEU	D	535	-112.653	-27.322	40.271	1.00	32.76
22442	C	LEU	D	535	-110.201	-24.092	38.668	1.00	32.22
22443	O	LEU	D	535	-110.243	-23.712	37.493	1.00	30.98
22444	N	ASN	D	536	-109.206	-23.810	39.498	1.00	32.18
22445	CA	ASN	D	536	-108.085	-23.001	39.066	1.00	31.90
22446	CB	ASN	D	536	-108.384	-21.536	39.359	1.00	31.60
22447	CG	ASN	D	536	-108.677	-21.291	40.818	1.00	31.90
22448	OD1	ASN	D	536	-108.304	-22.105	41.678	1.00	31.63
22449	ND2	ASN	D	536	-109.340	-20.161	41.122	1.00	29.42
22450	C	ASN	D	536	-106.775	-23.425	39.704	1.00	31.71
22451	O	ASN	D	536	-106.671	-24.492	40.296	1.00	31.78
22452	N	TRP	D	537	-105.768	-22.577	39.566	1.00	31.71
22453	CA	TRP	D	537	-104.455	-22.868	40.092	1.00	31.28
22454	CB	TRP	D	537	-103.569	-21.655	39.873	1.00	30.97
22455	CG	TRP	D	537	-102.151	-21.917	40.133	1.00	28.42
22456	CD1	TRP	D	537	-101.437	-23.003	39.750	1.00	26.24
22457	NE1	TRP	D	537	-100.129	-22.874	40.147	1.00	26.79
22458	CE2	TRP	D	537	-99.987	-21.686	40.814	1.00	26.24
22459	CD2	TRP	D	537	-101.244	-21.054	40.813	1.00	28.24
22460	CE3	TRP	D	537	-101.368	-19.802	41.436	1.00	26.92
22461	C23	TRP	D	537	-100.275	-19.248	42.025	1.00	26.67
22462	CH2	TRP	D	537	-99.035	-19.898	42.002	1.00	28.13
22463	C22	TRP	D	537	-98.874	-21.117	41.396	1.00	27.01
22464	C	TRP	D	537	-104.551	-23.137	41.575	1.00	31.39
22465	O	TRP	D	537	-103.943	-24.065	42.098	1.00	32.11
22466	N	ALA	D	538	-105.315	-22.298	42.255	1.00	31.48
22467	CA	ALA	D	538	-105.494	-22.417	43.683	1.00	31.67
22468	CB	ALA	D	538	-106.381	-21.287	44.196	1.00	31.61
22469	C	ALA	D	538	-106.073	-23.783	44.057	1.00	31.89
22470	O	ALA	D	538	-105.707	-24.346	45.077	1.00	32.15
22471	N	THR	D	539	-106.983	-24.306	43.241	1.00	32.44
22472	CA	THR	D	539	-107.528	-25.635	43.487	1.00	33.01
22473	CB	THR	D	539	-108.526	-26.049	42.393	1.00	32.91
22474	OG1	THR	D	539	-109.510	-25.030	42.220	1.00	32.56
22475	CG2	THR	D	539	-109.365	-27.234	42.861	1.00	33.33
22476	C	THR	D	539	-106.371	-26.625	43.536	1.00	33.42
22477	O	THR	D	539	-106.253	-27.407	44.467	1.00	33.41
22478	N	TYR	D	540	-105.504	-26.569	42.533	1.00	33.82
22479	CA	TYR	D	540	-104.343	-27.452	42.482	1.00	34.43
22480	CB	TYR	D	540	-103.574	-27.267	41.166	1.00	34.19
22481	CG	TYR	D	540	-102.083	-27.408	41.334	1.00	35.99

**REPLACEMENT SHEET**  
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**FIGURE 3 SA**

A	B	C	D	E	F	G	H	I	J
22482	CD1	TYR	D	540	-101.239	-26.291	41.266	1.00	36.53
22483	CE1	TYR	D	540	-99.870	-26.416	41.430	1.00	36.80
22484	CZ	TYR	D	540	-99.321	-27.666	41.678	1.00	39.13
22485	OH	TYR	D	540	-97.947	-27.817	41.841	1.00	39.63
22486	CE2	TYR	D	540	-100.144	-28.783	41.756	1.00	38.20
22487	CD2	TYR	D	540	-101.512	-28.647	41.583	1.00	36.76
22488	C	TYR	D	540	-103.403	-27.263	43.674	1.00	34.61
22489	O	TYR	D	540	-102.846	-28.227	44.187	1.00	35.20
22490	N	LEU	D	541	-103.220	-26.030	44.125	1.00	34.49
22491	CA	LEU	D	541	-102.306	-25.801	45.246	1.00	34.30
22492	CB	LEU	D	541	-101.986	-24.305	45.422	1.00	33.43
22493	CG	LEU	D	541	-101.287	-23.566	44.280	1.00	33.62
22494	CD1	LEU	D	541	-101.321	-22.060	44.528	1.00	33.14
22495	CD2	LEU	D	541	-99.857	-24.053	44.067	1.00	30.95
22496	C	LEU	D	541	-102.816	-26.372	46.568	1.00	34.23
22497	O	LEU	D	541	-102.043	-26.919	47.365	1.00	34.14
22498	N	ALA	D	542	-104.107	-26.211	46.820	1.00	34.20
22499	CA	ALA	D	542	-104.689	-26.682	48.067	1.00	34.60
22500	CB	ALA	D	542	-106.072	-26.089	48.250	1.00	34.08
22501	C	ALA	D	542	-104.774	-28.210	48.081	1.00	35.01
22502	O	ALA	D	542	-104.430	-28.873	49.069	1.00	34.56
22503	N	SER	D	543	-105.207	-28.740	46.945	1.00	35.36
22504	CA	SER	D	543	-105.488	-30.145	46.784	1.00	36.01
22505	CB	SER	D	543	-106.223	-30.344	45.461	1.00	36.05
22506	OG	SER	D	543	-106.513	-31.706	45.239	1.00	38.51
22507	C	SER	D	543	-104.241	-30.982	46.806	1.00	36.06
22508	O	SER	D	543	-104.138	-31.932	47.576	1.00	35.64
22509	N	THR	D	544	-103.278	-30.613	45.964	1.00	36.46
22510	CA	THR	D	544	-102.064	-31.412	45.797	1.00	36.40
22511	CB	THR	D	544	-101.614	-31.355	44.335	1.00	36.34
22512	OG1	THR	D	544	-102.676	-31.788	43.484	1.00	37.72
22513	CG2	THR	D	544	-100.522	-32.366	44.053	1.00	37.38
22514	C	THR	D	544	-100.911	-30.964	46.683	1.00	36.54
22515	O	THR	D	544	-100.186	-31.800	47.239	1.00	36.92
22516	N	GLU	D	545	-100.729	-29.649	46.816	1.00	35.81
22517	CA	GLU	D	545	-99.558	-29.141	47.515	1.00	35.27
22518	CB	GLU	D	545	-98.870	-28.052	46.674	1.00	34.96
22519	CG	GLU	D	545	-98.775	-28.409	45.193	1.00	34.43
22520	CD	GLU	D	545	-97.587	-29.292	44.853	1.00	33.89
22521	OE1	GLU	D	545	-97.339	-29.558	43.650	1.00	32.37
22522	OE2	GLU	D	545	-96.881	-29.715	45.787	1.00	35.41
22523	C	GLU	D	545	-99.892	-28.671	48.921	1.00	34.78
22524	O	GLU	D	545	-99.077	-28.076	49.611	1.00	35.19
22525	N	ASN	D	546	-101.101	-28.971	49.347	1.00	34.51
22526	CA	ASN	D	546	-101.558	-28.603	50.678	1.00	34.11
22527	CB	ASN	D	546	-101.163	-29.679	51.695	1.00	34.57
22528	CG	ASN	D	546	-101.851	-31.001	51.413	1.00	36.54
22529	OD1	ASN	D	546	-101.307	-31.860	50.719	1.00	40.92
22530	ND2	ASN	D	546	-103.064	-31.159	51.920	1.00	38.06
22531	C	ASN	D	546	-101.198	-27.195	51.136	1.00	33.35
22532	O	ASN	D	546	-100.691	-26.979	52.240	1.00	33.38

**REPLACEMENT SHEET**  
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**FIGURE 3 SB**

A	B	C	D	E	F	G	H	I	J
22533	N	ILE	D	547	-101.497	-26.236	50.269	1.00	32.27
22534	CA	ILE	D	547	-101.311	-24.827	50.545	1.00	30.72
22535	CB	ILE	D	547	-100.623	-24.155	49.330	1.00	31.08
22536	CG1	ILE	D	547	-99.209	-24.719	49.142	1.00	29.43
22537	CD1	ILE	D	547	-98.621	-24.443	47.817	1.00	24.93
22538	CG2	ILE	D	547	-100.610	-22.626	49.482	1.00	30.21
22539	C	ILE	D	547	-102.654	-24.157	50.779	1.00	30.22
22540	O	ILE	D	547	-103.548	-24.256	49.950	1.00	30.31
22541	N	ILE	D	548	-102.822	-23.489	51.913	1.00	29.75
22542	CA	ILE	D	548	-104.013	-22.695	52.083	1.00	29.56
22543	CB	ILE	D	548	-104.159	-22.187	53.502	1.00	29.32
22544	CG1	ILE	D	548	-104.299	-23.339	54.498	1.00	30.97
22545	CD1	ILE	D	548	-104.571	-22.855	55.948	1.00	28.15
22546	CG2	ILE	D	548	-105.390	-21.294	53.614	1.00	28.75
22547	C	ILE	D	548	-103.874	-21.491	51.156	1.00	29.79
22548	O	ILE	D	548	-102.842	-20.840	51.140	1.00	29.92
22549	N	VAL	D	549	-104.887	-21.195	50.360	1.00	29.75
22550	CA	VAL	D	549	-104.787	-19.987	49.572	1.00	29.97
22551	CB	VAL	D	549	-104.492	-20.228	48.067	1.00	29.86
22552	CG1	VAL	D	549	-104.788	-21.627	47.679	1.00	31.52
22553	CG2	VAL	D	549	-105.192	-19.204	47.198	1.00	30.60
22554	C	VAL	D	549	-105.961	-19.073	49.867	1.00	29.65
22555	O	VAL	D	549	-107.125	-19.410	49.628	1.00	29.74
22556	N	ALA	D	550	-105.619	-17.925	50.439	1.00	28.34
22557	CA	ALA	D	550	-106.589	-16.984	50.927	1.00	27.71
22558	CB	ALA	D	550	-106.215	-16.562	52.346	1.00	27.73
22559	C	ALA	D	550	-106.675	-15.750	50.054	1.00	27.36
22560	O	ALA	D	550	-105.756	-15.418	49.324	1.00	26.91
22561	N	SER	D	551	-107.790	-15.053	50.172	1.00	27.51
22562	CA	SER	D	551	-107.961	-13.810	49.461	1.00	28.01
22563	CB	SER	D	551	-108.754	-14.007	48.189	1.00	27.25
22564	OG	SER	D	551	-107.986	-14.798	47.310	1.00	28.09
22565	C	SER	D	551	-108.707	-13.001	50.433	1.00	27.68
22566	O	SER	D	551	-109.465	-13.565	51.223	1.00	28.39
22567	N	PHE	D	552	-108.489	-11.691	50.382	1.00	26.99
22568	CA	PHE	D	552	-109.076	-10.779	51.336	1.00	26.50
22569	CB	PHE	D	552	-108.028	-10.455	52.408	1.00	26.23
22570	CG	PHE	D	552	-108.509	-9.514	53.464	1.00	26.10
22571	CD1	PHE	D	552	-109.320	-9.962	54.495	1.00	26.43
22572	CE1	PHE	D	552	-109.764	-9.081	55.477	1.00	26.53
22573	CZ	PHE	D	552	-109.404	-7.758	55.425	1.00	25.63
22574	CE2	PHE	D	552	-108.595	-7.310	54.418	1.00	25.99
22575	CD2	PHE	D	552	-108.145	-6.190	53.439	1.00	25.54
22576	C	PHE	D	552	-109.546	-9.506	50.650	1.00	26.56
22577	O	PHE	D	552	-108.831	-8.934	49.849	1.00	26.45
22578	N	ASP	D	553	-110.764	-9.073	50.967	1.00	26.84
22579	CA	ASP	D	553	-111.307	-7.826	50.451	1.00	25.94
22580	CB	ASP	D	553	-112.769	-7.996	50.036	1.00	25.66
22581	CG	ASP	D	553	-112.948	-8.942	48.858	1.00	25.92
22582	OD1	ASP	D	553	-112.023	-9.073	48.032	1.00	22.66
22583	OD2	ASP	D	553	-113.995	-9.605	48.682	1.00	27.52



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**FIGURE 3 SC**

A	B	C	D	E	F	G	H	I	J
22584	C	ASP	D	553	-111.244	-6.789	51.553	1.00	26.12
22585	O	ASP	D	553	-112.113	-6.762	52.432	1.00	26.68
22586	N	GLY	D	554	-110.234	-5.928	51.516	1.00	25.48
22587	CA	GLY	D	554	-110.116	-4.893	52.521	1.00	25.03
22588	C	GLY	D	554	-110.654	-3.556	52.057	1.00	24.97
22589	O	GLY	D	554	-111.596	-3.502	51.273	1.00	25.10
22590	N	ARG	D	555	-110.063	-2.468	52.546	1.00	24.82
22591	CA	ARG	D	555	-110.487	-1.142	52.127	1.00	24.46
22592	CB	ARG	D	555	-109.787	-0.067	52.952	1.00	24.30
22593	CG	ARG	D	555	-110.429	0.147	54.341	1.00	24.14
22594	CD	ARG	D	555	-109.582	0.985	55.282	1.00	23.12
22595	NE	ARG	D	555	-108.311	0.342	55.614	1.00	22.67
22596	CZ	ARG	D	555	-107.446	0.851	56.473	1.00	23.02
22597	NH1	ARG	D	555	-107.718	2.010	57.046	1.00	22.64
22598	NH2	ARG	D	555	-106.318	0.212	56.764	1.00	22.47
22599	C	ARG	D	555	-110.262	-0.957	50.615	1.00	24.24
22600	O	ARG	D	555	-109.253	-1.424	50.068	1.00	23.62
22601	N	GLY	D	556	-111.209	-0.285	49.959	1.00	23.17
22602	CA	GLY	D	556	-111.192	-0.154	48.514	1.00	23.85
22603	C	GLY	D	556	-112.076	-1.209	47.838	1.00	24.14
22604	O	GLY	D	556	-112.551	-1.008	46.727	1.00	23.54
22605	N	SER	D	557	-112.309	-2.330	48.519	1.00	24.74
22606	CA	SER	D	557	-113.092	-3.431	47.949	1.00	25.59
22607	CB	SER	D	557	-112.978	-4.696	48.811	1.00	25.61
22608	OG	SER	D	557	-113.803	-4.610	49.962	1.00	27.57
22609	C	SER	D	557	-114.547	-3.020	47.697	1.00	25.30
22610	O	SER	D	557	-115.020	-2.030	48.250	1.00	25.68
22611	N	GLY	D	558	-115.246	-3.759	46.840	1.00	25.65
22612	CA	GLY	D	558	-116.579	-3.350	46.401	1.00	25.83
22613	C	GLY	D	558	-117.793	-3.985	47.056	1.00	26.02
22614	O	GLY	D	558	-117.668	-4.868	47.898	1.00	26.32
22615	N	TYR	D	559	-118.969	-3.502	46.673	1.00	26.34
22616	CA	TYR	D	559	-120.250	-4.099	47.058	1.00	27.19
22617	CB	TYR	D	559	-120.344	-5.531	46.482	1.00	27.45
22618	CG	TYR	D	559	-119.810	-5.588	45.074	1.00	27.95
22619	CD1	TYR	D	559	-118.562	-6.141	44.799	1.00	27.49
22620	CE1	TYR	D	559	-118.066	-6.172	43.501	1.00	27.94
22621	CZ	TYR	D	559	-118.813	-5.618	42.471	1.00	28.56
22622	OH	TYR	D	559	-118.323	-5.599	41.188	1.00	27.38
22623	CE2	TYR	D	559	-120.029	-5.035	42.731	1.00	28.45
22624	CD2	TYR	D	559	-120.514	-5.011	44.029	1.00	28.47
22625	C	TYR	D	559	-120.591	-4.091	48.549	1.00	27.37
22626	O	TYR	D	559	-121.465	-4.850	48.983	1.00	27.51
22627	N	GLN	D	560	-119.953	-3.204	49.311	1.00	27.31
22628	CA	GLN	D	560	-120.146	-3.101	50.759	1.00	27.23
22629	CB	GLN	D	560	-118.908	-3.625	51.489	1.00	27.77
22630	CG	GLN	D	560	-118.519	-5.043	51.134	1.00	28.91
22631	CD	GLN	D	560	-117.054	-5.331	51.357	1.00	31.26
22632	OE1	GLN	D	560	-116.624	-5.576	52.491	1.00	31.80
22633	NE2	GLN	D	560	-116.280	-5.344	50.268	1.00	30.98
22634	C	GLN	D	560	-120.366	-1.645	51.151	1.00	27.53

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**FIGURE 3 SD**

A	B	C	D	E	F	G	H	I	J
22635	O	GLN	D	560	-120.236	-1.267	52.321	1.00	27.86
22636	N	GLY	D	561	-120.679	-0.817	50.161	1.00	27.89
22637	CA	GLY	D	561	-120.889	0.602	50.395	1.00	27.38
22638	C	GLY	D	561	-119.659	1.477	50.206	1.00	27.11
22639	O	GLY	D	561	-118.524	1.008	50.263	1.00	26.62
22640	N	ASP	D	562	-119.892	2.767	49.995	1.00	27.30
22641	CA	ASP	D	562	-118.812	3.709	49.753	1.00	28.31
22642	CB	ASP	D	562	-119.365	5.051	49.321	1.00	28.36
22643	CG	ASP	D	562	-120.046	4.988	47.983	1.00	29.39
22644	OD1	ASP	D	562	-119.845	3.988	47.236	1.00	30.55
22645	OD2	ASP	D	562	-120.815	5.894	47.610	1.00	29.84
22646	C	ASP	D	562	-117.812	3.926	50.880	1.00	28.85
22647	O	ASP	D	562	-116.637	4.191	50.616	1.00	29.41
22648	N	LYS	D	563	-118.249	3.850	52.127	1.00	29.56
22649	CA	LYS	D	563	-117.301	4.043	53.225	1.00	30.60
22650	CB	LYS	D	563	-117.917	3.696	54.573	1.00	31.11
22651	CG	LYS	D	563	-116.916	3.688	55.720	1.00	34.21
22652	CD	LYS	D	563	-116.706	5.123	56.259	1.00	41.16
22653	CE	LYS	D	563	-115.530	5.204	57.255	1.00	43.33
22654	NZ	LYS	D	563	-115.058	6.615	57.450	1.00	44.62
22655	C	LYS	D	563	-116.087	3.165	52.984	1.00	30.00
22656	O	LYS	D	563	-114.957	3.612	53.094	1.00	30.15
22657	N	ILE	D	564	-116.328	1.906	52.642	1.00	29.49
22658	CA	ILE	D	564	-115.235	0.996	52.373	1.00	28.53
22659	CB	ILE	D	564	-115.717	-0.469	52.546	1.00	29.28
22660	CG1	ILE	D	564	-115.851	-0.832	54.031	1.00	27.78
22661	CD1	ILE	D	564	-116.449	-2.225	54.258	1.00	26.22
22662	CG2	ILE	D	564	-114.757	-1.466	51.812	1.00	27.48
22663	C	ILE	D	564	-114.642	1.180	50.973	1.00	28.08
22664	O	ILE	D	564	-113.441	1.096	50.794	1.00	28.14
22665	N	MET	D	565	-115.471	1.426	49.971	1.00	27.98
22666	CA	MET	D	565	-114.939	1.458	48.603	1.00	27.61
22667	CB	MET	D	565	-116.057	1.360	47.561	1.00	27.73
22668	CG	MET	D	565	-115.550	1.349	46.129	1.00	26.07
22669	SD	MET	D	565	-116.862	1.094	44.933	1.00	27.30
22670	CE	MET	D	565	-117.601	2.652	44.824	1.00	25.23
22671	C	MET	D	565	-114.088	2.672	48.333	1.00	27.63
22672	O	MET	D	565	-113.015	2.559	47.745	1.00	27.09
22673	N	HIS	D	566	-114.578	3.830	48.773	1.00	27.52
22674	CA	HIS	D	566	-113.881	5.093	48.577	1.00	27.65
22675	CB	HIS	D	566	-114.865	6.269	48.626	1.00	27.68
22676	CG	HIS	D	566	-115.793	6.303	47.457	1.00	26.99
22677	ND1	HIS	D	566	-116.939	7.066	47.429	1.00	28.50
22678	CE1	HIS	D	566	-117.567	6.871	46.281	1.00	28.97
22679	NE2	HIS	D	566	-116.873	5.999	45.569	1.00	26.95
22680	CD2	HIS	D	566	-115.766	5.620	46.290	1.00	27.38
22681	C	HIS	D	566	-112.754	5.329	49.555	1.00	27.89
22682	O	HIS	D	566	-112.116	6.376	49.526	1.00	28.02
22683	N	ALA	D	567	-112.488	4.358	50.418	1.00	28.19
22684	CA	ALA	D	567	-111.425	4.533	51.401	1.00	28.18
22685	CB	ALA	D	567	-111.348	3.320	52.332	1.00	28.22

**REPLACEMENT SHEET**  
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**FIGURE 3 SE**

A	B	C	D	E	F	G	H	I	J
22686	C	ALA	D	567	-110.071	4.789	50.740	1.00	28.08
22687	O	ALA	D	567	-109.205	5.449	51.328	1.00	27.85
22688	N	ILE	D	568	-109.874	4.259	49.528	1.00	27.58
22689	CA	ILE	D	568	-108.598	4.447	48.850	1.00	27.06
22690	CB	ILE	D	568	-108.082	3.124	48.203	1.00	27.60
22691	CG1	ILE	D	568	-109.113	2.479	47.291	1.00	26.85
22692	CD1	ILE	D	568	-109.901	3.443	46.432	1.00	29.00
22693	CG2	ILE	D	568	-107.640	2.107	49.293	1.00	28.00
22694	C	ILE	D	568	-108.593	5.594	47.844	1.00	27.07
22695	O	ILE	D	568	-107.677	5.697	47.015	1.00	26.67
22696	N	ASN	D	569	-109.608	6.456	47.920	1.00	26.74
22697	CA	ASN	D	569	-109.717	7.583	46.997	1.00	26.98
22698	CB	ASN	D	569	-110.934	8.450	47.337	1.00	26.81
22699	CG	ASN	D	569	-111.215	9.499	46.277	1.00	29.08
22700	OD1	ASN	D	569	-111.277	10.699	46.570	1.00	31.62
22701	ND2	ASN	D	569	-111.367	9.058	45.034	1.00	28.47
22702	C	ASN	D	569	-108.458	8.435	47.024	1.00	27.29
22703	O	ASN	D	569	-108.073	8.946	48.075	1.00	26.42
22704	N	ARG	D	570	-107.791	8.544	45.877	1.00	27.75
22705	CA	ARG	D	570	-106.620	9.405	45.760	1.00	28.44
22706	CB	ARG	D	570	-106.924	10.792	46.346	1.00	28.62
22707	CG	ARG	D	570	-107.950	11.571	45.559	1.00	30.72
22708	CD	ARG	D	570	-108.236	12.971	46.119	1.00	36.07
22709	NE	ARG	D	570	-107.033	13.789	46.249	1.00	38.04
22710	CZ	ARG	D	570	-106.550	14.551	45.282	1.00	39.15
22711	NH1	ARG	D	570	-107.167	14.596	44.108	1.00	39.37
22712	NH2	ARG	D	570	-105.448	15.267	45.483	1.00	40.48
22713	C	ARG	D	570	-105.439	8.805	46.473	1.00	28.36
22714	O	ARG	D	570	-104.361	9.397	46.559	1.00	27.76
22715	N	ARG	D	571	-105.618	7.595	46.964	1.00	28.89
22716	CA	ARG	D	571	-104.562	7.056	47.778	1.00	29.67
22717	CB	ARG	D	571	-104.861	7.341	49.256	1.00	29.49
22718	CG	ARG	D	571	-103.669	7.967	49.989	1.00	34.40
22719	CD	ARG	D	571	-103.706	9.481	50.211	1.00	37.34
22720	NE	ARG	D	571	-103.697	10.225	48.963	1.00	40.61
22721	CZ	ARG	D	571	-103.474	11.525	48.868	1.00	41.04
22722	NH1	ARG	D	571	-103.490	12.103	47.672	1.00	40.49
22723	NH2	ARG	D	571	-103.233	12.248	49.960	1.00	41.29
22724	C	ARG	D	571	-104.290	5.589	47.472	1.00	29.13
22725	O	ARG	D	571	-104.166	4.748	48.366	1.00	29.48
22726	N	LEU	D	572	-104.185	5.290	46.186	1.00	28.53
22727	CA	LEU	D	572	-103.865	3.918	45.770	1.00	28.13
22728	CB	LEU	D	572	-103.815	3.814	44.246	1.00	27.82
22729	CG	LEU	D	572	-105.077	3.332	43.525	1.00	28.58
22730	CD1	LEU	D	572	-105.174	3.831	42.088	1.00	25.84
22731	CD2	LEU	D	572	-106.344	3.628	44.310	1.00	28.27
22732	C	LEU	D	572	-102.534	3.495	46.372	1.00	27.64
22733	O	LEU	D	572	-101.662	4.323	46.605	1.00	28.39
22734	N	GLY	D	573	-102.379	2.210	46.640	1.00	26.99
22735	CA	GLY	D	573	-101.137	1.711	47.178	1.00	25.65
22736	C	GLY	D	573	-100.985	2.031	48.656	1.00	25.59

**REPLACEMENT SHEET**  
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**FIGURE 3 SF**

A	B	C	D	E	F	G	H	I	J
22737	O	GLY	D	573	-99.872	2.088	49.158	1.00	25.01
22738	N	THR	D	574	-102.089	2.271	49.358	1.00	25.02
22739	CA	THR	D	574	-101.978	2.512	50.798	1.00	24.80
22740	CB	THR	D	574	-102.403	3.932	51.175	1.00	24.60
22741	OG1	THR	D	574	-103.769	4.133	50.788	1.00	25.11
22742	CG2	THR	D	574	-101.624	4.977	50.361	1.00	24.02
22743	C	THR	D	574	-102.786	1.507	51.618	1.00	24.68
22744	O	THR	D	574	-102.291	0.453	51.957	1.00	23.86
22745	N	PHE	D	575	-104.039	1.843	51.913	1.00	25.42
22746	CA	PHE	D	575	-104.984	1.037	52.786	1.00	26.24
22747	CB	PHE	D	575	-106.212	1.749	53.005	1.00	26.92
22748	CG	PHE	D	575	-106.088	3.074	53.724	1.00	28.29
22749	CD1	PHE	D	575	-105.145	3.260	54.707	1.00	28.72
22750	CE1	PHE	D	575	-105.050	4.475	55.390	1.00	30.07
22751	CZ	PHE	D	575	-105.896	5.510	55.090	1.00	29.21
22752	CE2	PHE	D	575	-106.848	5.335	54.106	1.00	31.74
22753	CD2	PHE	D	575	-106.949	4.113	53.435	1.00	29.53
22754	C	PHE	D	575	-105.167	-0.374	52.291	1.00	26.80
22755	O	PHE	D	575	-105.347	-1.297	53.094	1.00	27.14
22756	N	GLU	D	576	-105.226	-0.541	50.973	1.00	26.67
22757	CA	GLU	D	576	-105.526	-1.825	50.386	1.00	26.70
22758	CB	GLU	D	576	-106.059	-1.656	48.953	1.00	27.22
22759	CG	GLU	D	576	-104.999	-1.536	47.850	1.00	28.25
22760	CD	GLU	D	576	-104.397	-0.138	47.693	1.00	29.97
22761	OE1	GLU	D	576	-104.224	0.603	48.695	1.00	29.55
22762	OE2	GLU	D	576	-104.064	0.213	46.544	1.00	31.10
22763	C	GLU	D	576	-104.284	-2.701	50.463	1.00	27.03
22764	O	GLU	D	576	-104.381	-3.921	50.618	1.00	27.54
22765	N	VAL	D	577	-103.113	-2.082	50.372	1.00	27.44
22766	CA	VAL	D	577	-101.849	-2.797	50.534	1.00	27.86
22767	CB	VAL	D	577	-100.634	-1.902	50.144	1.00	28.09
22768	CG1	VAL	D	577	-100.673	-1.570	48.673	1.00	27.66
22769	CG2	VAL	D	577	-99.293	-2.566	50.504	1.00	26.74
22770	C	VAL	D	577	-101.729	-3.218	52.006	1.00	28.75
22771	O	VAL	D	577	-101.523	-4.386	52.314	1.00	27.76
22772	N	GLU	D	578	-101.889	-2.244	52.900	1.00	29.84
22773	CA	GLU	D	578	-101.814	-2.454	54.348	1.00	31.68
22774	CB	GLU	D	578	-102.010	-1.110	55.089	1.00	32.26
22775	CG	GLU	D	578	-100.801	-0.173	54.957	1.00	37.82
22776	CD	GLU	D	578	-101.117	1.320	55.116	1.00	45.04
22777	OE1	GLU	D	578	-100.809	2.100	54.163	1.00	47.10
22778	OE2	GLU	D	578	-101.632	1.736	56.196	1.00	46.15
22779	C	GLU	D	578	-102.811	-3.519	54.825	1.00	31.53
22780	O	GLU	D	578	-102.450	-4.412	55.596	1.00	31.88
22781	N	ASP	D	579	-104.052	-3.450	54.345	1.00	31.09
22782	CA	ASP	D	579	-105.054	-4.420	54.764	1.00	30.71
22783	CB	ASP	D	579	-106.443	-4.034	54.266	1.00	31.02
22784	CG	ASP	D	579	-107.014	-2.810	54.984	1.00	32.48
22785	OD1	ASP	D	579	-106.396	-2.324	55.962	1.00	33.16
22786	OD2	ASP	D	579	-108.090	-2.261	54.632	1.00	33.82
22787	C	ASP	D	579	-104.679	-5.863	54.361	1.00	30.02

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FIGURE 3 SG

A	B	C	D	E	F	G	H	I	J
22788	O	ASP	D	579	-104.980	-6.809	55.085	1.00	29.35
22789	N	GLN	D	580	-104.007	-6.037	53.229	1.00	29.15
22790	CA	GLN	D	580	-103.561	-7.375	52.844	1.00	28.97
22791	CB	GLN	D	580	-102.978	-7.394	51.428	1.00	28.42
22792	CG	GLN	D	580	-103.972	-7.130	50.322	1.00	27.58
22793	CD	GLN	D	580	-104.992	-8.242	50.155	1.00	27.11
22794	OE1	GLN	D	580	-104.625	-9.400	50.001	1.00	25.81
22795	NE2	GLN	D	580	-106.280	-7.883	50.161	1.00	25.38
22796	C	GLN	D	580	-102.512	-7.896	53.828	1.00	29.53
22797	O	GLN	D	580	-102.454	-9.095	54.117	1.00	29.69
22798	N	ILE	D	581	-101.661	-7.002	54.321	1.00	29.77
22799	CA	ILE	D	581	-100.649	-7.403	55.272	1.00	30.78
22800	CB	ILE	D	581	-99.610	-6.280	55.453	1.00	30.83
22801	CG1	ILE	D	581	-98.635	-6.234	54.267	1.00	30.50
22802	CD1	ILE	D	581	-98.115	-4.801	54.003	1.00	29.32
22803	CG2	ILE	D	581	-98.837	-6.434	56.772	1.00	30.88
22804	C	ILE	D	581	-101.318	-7.778	56.599	1.00	31.22
22805	O	ILE	D	581	-101.019	-8.815	57.185	1.00	31.08
22806	N	GLU	D	582	-102.229	-6.925	57.052	1.00	31.70
22807	CA	GLU	D	582	-102.977	-7.160	58.286	1.00	32.63
22808	CB	GLU	D	582	-103.890	-5.968	58.609	1.00	32.27
22809	CG	GLU	D	582	-104.750	-6.176	59.838	1.00	33.99
22810	CD	GLU	D	582	-103.925	-6.299	61.114	1.00	38.62
22811	OE1	GLU	D	582	-104.472	-6.791	62.124	1.00	38.76
22812	OE2	GLU	D	582	-102.734	-5.891	61.114	1.00	40.20
22813	C	GLU	D	582	-103.801	-8.444	58.194	1.00	32.47
22814	O	GLU	D	582	-103.972	-9.158	59.183	1.00	33.17
22815	N	ALA	D	583	-104.292	-8.740	57.002	1.00	32.20
22816	CA	ALA	D	583	-105.040	-9.974	56.783	1.00	32.77
22817	CB	ALA	D	583	-105.639	-10.020	55.371	1.00	32.21
22818	C	ALA	D	583	-104.140	-11.171	57.008	1.00	32.51
22819	O	ALA	D	583	-104.515	-12.108	57.702	1.00	32.29
22820	N	ALA	D	584	-102.961	-11.134	56.399	1.00	32.95
22821	CA	ALA	D	584	-101.987	-12.207	56.561	1.00	34.06
22822	CB	ALA	D	584	-100.776	-11.936	55.745	1.00	33.46
22823	C	ALA	D	584	-101.625	-12.358	58.038	1.00	35.08
22824	O	ALA	D	584	-101.484	-13.473	58.540	1.00	35.25
22825	N	ARG	D	585	-101.504	-11.231	58.729	1.00	36.40
22826	CA	ARG	D	585	-101.232	-11.240	60.155	1.00	38.09
22827	CB	ARG	D	585	-101.007	-9.819	60.693	1.00	38.45
22828	CG	ARG	D	585	-99.588	-9.293	60.510	1.00	37.61
22829	CD	ARG	D	585	-99.263	-8.106	61.400	1.00	38.68
22830	NE	ARG	D	585	-98.920	-6.886	60.672	1.00	40.40
22831	CZ	ARG	D	585	-97.673	-6.482	60.453	1.00	40.67
22832	NH1	ARG	D	585	-96.654	-7.202	60.898	1.00	41.73
22833	NH2	ARG	D	585	-97.438	-5.360	59.799	1.00	39.47
22834	C	ARG	D	585	-102.342	-11.921	60.942	1.00	39.12
22835	O	ARG	D	585	-102.058	-12.724	61.816	1.00	39.64
22836	N	GLN	D	586	-103.599	-11.622	60.630	1.00	40.11
22837	CA	GLN	D	586	-104.709	-12.224	61.360	1.00	41.16
22838	CB	GLN	D	586	-106.025	-11.492	61.091	1.00	41.10

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FIGURE 3 SH

A	B	C	D	E	F	G	H	I	J
22839	CG	GLN	D	586	-106.123	-10.079	61.682	1.00	42.90
22840	CD	GLN	D	586	-106.715	-10.060	63.075	1.00	45.95
22841	OE1	GLN	D	586	-107.124	-9.015	63.566	1.00	47.36
22842	NE2	GLN	D	586	-106.773	-11.226	63.711	1.00	48.11
22843	C	GLN	D	586	-104.861	-13.705	61.031	1.00	41.99
22844	O	GLN	D	586	-105.377	-14.474	61.847	1.00	42.30
22845	N	PHE	D	587	-104.427	-14.101	59.836	1.00	42.89
22846	CA	PHE	D	587	-104.498	-15.503	59.426	1.00	43.33
22847	CB	PHE	D	587	-104.241	-15.677	57.921	1.00	42.71
22848	CG	PHE	D	587	-105.281	-15.049	57.037	1.00	41.34
22849	CD1	PHE	D	587	-106.572	-14.834	57.493	1.00	40.20
22850	CE1	PHE	D	587	-107.521	-14.254	56.671	1.00	38.14
22851	CZ	PHE	D	587	-107.187	-13.895	55.376	1.00	37.46
22852	CE2	PHE	D	587	-105.919	-14.116	54.912	1.00	36.54
22853	CD2	PHE	D	587	-104.971	-14.685	55.735	1.00	38.81
22854	C	PHE	D	587	-103.440	-16.252	60.226	1.00	44.39
22855	O	PHE	D	587	-103.657	-17.389	60.638	1.00	44.74
22856	N	SER	D	588	-102.292	-15.606	60.430	1.00	45.69
22857	CA	SER	D	588	-101.217	-16.161	61.258	1.00	47.02
22858	CB	SER	D	588	-100.030	-15.195	61.361	1.00	47.26
22859	OG	SER	D	588	-99.056	-15.433	60.351	1.00	48.72
22860	C	SER	D	588	-101.720	-16.455	62.663	1.00	47.44
22861	O	SER	D	588	-101.435	-17.517	63.217	1.00	47.74
22862	N	LYS	D	589	-102.472	-15.524	63.238	1.00	47.68
22863	CA	LYS	D	589	-102.988	-15.726	64.586	1.00	48.75
22864	CB	LYS	D	589	-103.438	-14.397	65.214	1.00	48.90
22865	CG	LYS	D	589	-102.318	-13.665	65.968	1.00	51.80
22866	CD	LYS	D	589	-101.415	-12.829	65.027	1.00	56.24
22867	CE	LYS	D	589	-100.144	-12.316	65.741	1.00	58.28
22868	NZ	LYS	D	589	-99.516	-11.165	65.007	1.00	60.63
22869	C	LYS	D	589	-104.093	-16.788	64.665	1.00	48.47
22870	O	LYS	D	589	-104.526	-17.158	65.759	1.00	49.01
22871	N	MET	D	590	-104.539	-17.283	63.515	1.00	47.95
22872	CA	MET	D	590	-105.591	-18.293	63.503	1.00	47.45
22873	CB	MET	D	590	-106.346	-18.303	62.171	1.00	47.08
22874	CG	MET	D	590	-107.438	-17.267	62.106	1.00	46.07
22875	SD	MET	D	590	-108.073	-17.158	60.449	1.00	44.94
22876	CE	MET	D	590	-109.348	-15.990	60.659	1.00	45.88
22877	C	MET	D	590	-105.095	-19.711	63.865	1.00	47.12
22878	O	MET	D	590	-105.898	-20.636	64.054	1.00	47.49
22879	N	GLY	D	591	-103.776	-19.890	63.940	1.00	46.11
22880	CA	GLY	D	591	-103.200	-21.150	64.388	1.00	44.74
22881	C	GLY	D	591	-102.758	-22.185	63.369	1.00	44.10
22882	O	GLY	D	591	-101.780	-22.897	63.599	1.00	44.53
22883	N	PHE	D	592	-103.471	-22.294	62.254	1.00	42.57
22884	CA	PHE	D	592	-103.126	-23.294	61.258	1.00	40.76
22885	CB	PHE	D	592	-104.397	-23.899	60.674	1.00	41.08
22886	CG	PHE	D	592	-105.425	-22.884	60.306	1.00	40.63
22887	CD1	PHE	D	592	-106.558	-22.719	61.075	1.00	41.45
22888	CE1	PHE	D	592	-107.511	-21.772	60.727	1.00	40.92
22889	CZ	PHE	D	592	-107.322	-20.993	59.602	1.00	39.45

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**FIGURE 3 SI**

A	B	C	D	E	F	G	H	I	J
22890	CE2	PHE	D	592	-106.197	-21.156	58.839	1.00	38.64
22891	CD2	PHE	D	592	-105.257	-22.087	59.188	1.00	39.90
22892	C	PHE	D	592	-102.241	-22.752	60.135	1.00	39.98
22893	O	PHE	D	592	-102.193	-23.327	59.035	1.00	39.38
22894	N	VAL	D	593	-101.536	-21.658	60.409	1.00	38.64
22895	CA	VAL	D	593	-100.630	-21.083	59.411	1.00	37.58
22896	CB	VAL	D	593	-101.005	-19.628	59.041	1.00	37.59
22897	CG1	VAL	D	593	-99.801	-18.892	58.427	1.00	36.42
22898	CG2	VAL	D	593	-102.186	-19.618	58.087	1.00	36.64
22899	C	VAL	D	593	-99.170	-21.140	59.809	1.00	37.12
22900	O	VAL	D	593	-98.782	-20.674	60.884	1.00	37.47
22901	N	ASP	D	594	-98.353	-21.720	58.943	1.00	36.52
22902	CA	ASP	D	594	-96.923	-21.728	59.187	1.00	36.38
22903	CB	ASP	D	594	-96.230	-22.810	58.354	1.00	35.77
22904	CG	ASP	D	594	-94.731	-22.758	58.494	1.00	35.39
22905	OD1	ASP	D	594	-94.008	-23.515	57.802	1.00	35.89
22906	OD2	ASP	D	594	-94.181	-21.980	59.292	1.00	34.16
22907	C	ASP	D	594	-96.374	-20.345	58.830	1.00	36.57
22908	O	ASP	D	594	-96.181	-20.044	57.650	1.00	37.17
22909	N	ASN	D	595	-96.160	-19.507	59.840	1.00	36.30
22910	CA	ASN	D	595	-95.634	-18.148	59.656	1.00	36.78
22911	CB	ASN	D	595	-95.377	-17.491	61.018	1.00	37.54
22912	CG	ASN	D	595	-96.649	-17.078	61.699	1.00	41.48
22913	OD1	ASN	D	595	-97.746	-17.471	61.280	1.00	45.39
22914	ND2	ASN	D	595	-96.526	-16.287	62.760	1.00	43.93
22915	C	ASN	D	595	-94.352	-18.036	58.835	1.00	35.85
22916	O	ASN	D	595	-93.994	-16.953	58.370	1.00	35.40
22917	N	LYS	D	596	-93.648	-19.143	58.675	1.00	34.72
22918	CA	LYS	D	596	-92.413	-19.119	57.920	1.00	34.21
22919	CB	LYS	D	596	-91.435	-20.128	58.507	1.00	34.17
22920	CG	LYS	D	596	-91.250	-19.909	60.041	1.00	36.54
22921	CD	LYS	D	596	-90.150	-20.773	60.662	1.00	37.81
22922	CE	LYS	D	596	-90.308	-22.227	60.276	1.00	40.13
22923	NZ	LYS	D	596	-91.635	-22.778	60.686	1.00	41.92
22924	C	LYS	D	596	-92.651	-19.320	56.417	1.00	33.28
22925	O	LYS	D	596	-91.740	-19.205	55.602	1.00	33.31
22926	N	ARG	D	597	-93.889	-19.597	56.049	1.00	32.32
22927	CA	ARG	D	597	-94.202	-19.812	54.644	1.00	31.94
22928	CB	ARG	D	597	-94.289	-21.301	54.364	1.00	32.07
22929	CG	ARG	D	597	-92.965	-21.992	54.619	1.00	34.21
22930	CD	ARG	D	597	-92.971	-23.463	54.314	1.00	34.83
22931	NE	ARG	D	597	-93.720	-24.207	55.309	1.00	36.28
22932	CZ	ARG	D	597	-94.198	-25.416	55.095	1.00	38.14
22933	NH1	ARG	D	597	-94.010	-25.999	53.911	1.00	38.90
22934	NH2	ARG	D	597	-94.860	-26.040	56.049	1.00	37.79
22935	C	ARG	D	597	-95.474	-19.093	54.193	1.00	30.69
22936	O	ARG	D	597	-96.473	-19.730	53.857	1.00	30.79
22937	N	ILE	D	598	-95.442	-17.768	54.225	1.00	29.08
22938	CA	ILE	D	598	-96.571	-16.980	53.737	1.00	27.73
22939	CB	ILE	D	598	-97.092	-15.999	54.803	1.00	27.92
22940	CG1	ILE	D	598	-97.392	-16.759	56.110	1.00	26.82

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FIGURE 3 SJ

A	B	C	D	E	F	G	H	I	J
22941	CD1	ILE	D	598	-97.873	-15.890	57.219	1.00	25.20
22942	CG2	ILE	D	598	-98.342	-15.300	54.329	1.00	25.89
22943	C	ILE	D	598	-96.084	-16.276	52.488	1.00	27.30
22944	O	ILE	D	598	-95.021	-15.649	52.471	1.00	26.65
22945	N	ALA	D	599	-96.846	-16.448	51.419	1.00	26.51
22946	CA	ALA	D	599	-96.491	-15.902	50.144	1.00	25.08
22947	CB	ALA	D	599	-96.186	-17.014	49.175	1.00	25.13
22948	C	ALA	D	599	-97.655	-15.086	49.669	1.00	25.14
22949	O	ALA	D	599	-98.724	-15.064	50.295	1.00	24.14
22950	N	ILE	D	600	-97.444	-14.383	48.563	1.00	24.78
22951	CA	ILE	D	600	-98.485	-13.536	48.032	1.00	23.69
22952	CB	ILE	D	600	-98.459	-12.153	48.722	1.00	24.06
22953	CG1	ILE	D	600	-99.587	-11.273	48.193	1.00	23.71
22954	CD1	ILE	D	600	-99.725	-9.971	48.917	1.00	21.11
22955	CG2	ILE	D	600	-97.081	-11.463	48.559	1.00	22.54
22956	C	ILE	D	600	-98.274	-13.440	46.548	1.00	23.68
22957	O	ILE	D	600	-97.149	-13.503	46.049	1.00	23.70
22958	N	TRP	D	601	-99.369	-13.334	45.818	1.00	23.86
22959	CA	TRP	D	601	-99.271	-13.281	44.376	1.00	22.92
22960	CB	TRP	D	601	-99.091	-14.680	43.784	1.00	22.51
22961	CG	TRP	D	601	-100.342	-15.316	43.245	1.00	22.42
22962	CD1	TRP	D	601	-101.266	-15.997	43.949	1.00	21.34
22963	NE1	TRP	D	601	-102.258	-16.458	43.121	1.00	22.82
22964	CE2	TRP	D	601	-101.970	-16.092	41.834	1.00	23.85
22965	CD2	TRP	D	601	-100.767	-15.365	41.874	1.00	23.54
22966	CE3	TRP	D	601	-100.250	-14.863	40.673	1.00	23.20
22967	CZ3	TRP	D	601	-100.937	-15.104	39.498	1.00	24.27
22968	CH2	TRP	D	601	-102.146	-15.832	39.492	1.00	23.52
22969	CZ2	TRP	D	601	-102.674	-16.331	40.646	1.00	22.15
22970	C	TRP	D	601	-100.514	-12.627	43.843	1.00	22.66
22971	O	TRP	D	601	-101.545	-12.651	44.493	1.00	22.09
22972	N	GLY	D	602	-100.389	-12.044	42.656	1.00	22.24
22973	CA	GLY	D	602	-101.468	-11.332	42.015	1.00	21.84
22974	C	GLY	D	602	-101.087	-10.926	40.603	1.00	21.79
22975	O	GLY	D	602	-99.926	-11.006	40.198	1.00	22.06
22976	N	TRP	D	603	-102.071	-10.438	39.872	1.00	22.68
22977	CA	TRP	D	603	-101.951	-10.131	38.455	1.00	23.29
22978	CB	TRP	D	603	-102.806	-11.160	37.719	1.00	23.27
22979	CG	TRP	D	603	-102.592	-11.304	36.278	1.00	25.73
22980	CD1	TRP	D	603	-102.670	-10.327	35.335	1.00	27.22
22981	NE1	TRP	D	603	-102.409	-10.852	34.090	1.00	28.83
22982	CE2	TRP	D	603	-102.166	-12.196	34.209	1.00	28.70
22983	CD2	TRP	D	603	-102.284	-12.520	35.574	1.00	28.46
22984	CE3	TRP	D	603	-102.069	-13.852	35.967	1.00	29.49
22985	CZ3	TRP	D	603	-101.772	-14.801	34.994	1.00	29.73
22986	CH2	TRP	D	603	-101.676	-14.442	33.640	1.00	28.93
22987	CZ2	TRP	D	603	-101.877	-13.150	33.232	1.00	28.88
22988	C	TRP	D	603	-102.542	-8.750	38.254	1.00	23.40
22989	O	TRP	D	603	-103.594	-8.463	38.792	1.00	23.07
22990	N	SER	D	604	-101.873	-7.886	37.494	1.00	24.27
22991	CA	SER	D	604	-102.407	-6.535	37.222	1.00	24.66



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**FIGURE 3 SK**

A	B	C	D	E	F	G	H	I	J
22992	CB	SER	D	604	-103.789	-6.615	36.568	1.00	24.77
22993	OG	SER	D	604	-104.070	-5.413	35.859	1.00	26.90
22994	C	SER	D	604	-102.422	-5.670	38.486	1.00	23.41
22995	O	SER	D	604	-101.372	-5.445	39.058	1.00	23.95
22996	N	TYR	D	605	-103.579	-5.193	38.931	1.00	23.03
22997	CA	TYR	D	605	-103.631	-4.467	40.203	1.00	22.68
22998	CB	TYR	D	605	-105.054	-4.018	40.581	1.00	22.87
22999	CG	TYR	D	605	-105.036	-2.841	41.583	1.00	24.08
23000	CD1	TYR	D	605	-105.355	-1.549	41.178	1.00	21.68
23001	CE1	TYR	D	605	-105.338	-0.482	42.061	1.00	21.13
23002	CZ	TYR	D	605	-104.977	-0.696	43.366	1.00	23.44
23003	OH	TYR	D	605	-104.941	0.359	44.218	1.00	23.36
23004	CE2	TYR	D	605	-104.645	-1.964	43.817	1.00	24.51
23005	CD2	TYR	D	605	-104.660	-3.032	42.921	1.00	24.94
23006	C	TYR	D	605	-103.053	-5.407	41.267	1.00	22.70
23007	O	TYR	D	605	-102.310	-4.995	42.169	1.00	22.81
23008	N	GLY	D	606	-103.356	-6.687	41.112	1.00	21.85
23009	CA	GLY	D	606	-102.812	-7.697	41.981	1.00	21.79
23010	C	GLY	D	606	-101.293	-7.751	41.985	1.00	21.22
23011	O	GLY	D	606	-100.695	-8.008	43.023	1.00	20.85
23012	N	GLY	D	607	-100.662	-7.548	40.835	1.00	20.80
23013	CA	GLY	D	607	-99.208	-7.534	40.794	1.00	20.33
23014	C	GLY	D	607	-98.629	-6.308	41.505	1.00	21.15
23015	O	GLY	D	607	-97.564	-6.384	42.123	1.00	21.69
23016	N	TYR	D	608	-99.325	-5.172	41.394	1.00	21.32
23017	CA	TYR	D	608	-98.955	-3.955	42.075	1.00	21.05
23018	CB	TYR	D	608	-99.920	-2.870	41.644	1.00	21.75
23019	CG	TYR	D	608	-99.789	-1.561	42.412	1.00	19.88
23020	CD1	TYR	D	608	-100.839	-1.076	43.171	1.00	18.29
23021	CE1	TYR	D	608	-100.738	0.144	43.831	1.00	19.02
23022	CZ	TYR	D	608	-99.576	0.867	43.738	1.00	18.01
23023	OH	TYR	D	608	-99.460	2.076	44.406	1.00	19.81
23024	CE2	TYR	D	608	-98.518	0.382	42.994	1.00	16.72
23025	CD2	TYR	D	608	-98.639	-0.802	42.326	1.00	16.68
23026	C	TYR	D	608	-99.033	-4.139	43.592	1.00	21.56
23027	O	TYR	D	608	-98.074	-3.875	44.301	1.00	21.04
23028	N	VAL	D	609	-100.173	-4.617	44.090	1.00	21.97
23029	CA	VAL	D	609	-100.330	-4.835	45.529	1.00	22.43
23030	CB	VAL	D	609	-101.749	-5.254	45.905	1.00	22.62
23031	CG1	VAL	D	609	-101.836	-5.550	47.428	1.00	22.40
23032	CG2	VAL	D	609	-102.699	-4.105	45.568	1.00	22.38
23033	C	VAL	D	609	-99.312	-5.822	46.066	1.00	23.00
23034	O	VAL	D	609	-98.640	-5.546	47.077	1.00	23.05
23035	N	THR	D	610	-99.167	-6.943	45.356	1.00	23.22
23036	CA	THR	D	610	-98.195	-7.967	45.702	1.00	23.21
23037	CB	THR	D	610	-98.125	-9.072	44.599	1.00	22.93
23038	OG1	THR	D	610	-99.203	-9.996	44.777	1.00	22.62
23039	CG2	THR	D	610	-96.871	-9.962	44.779	1.00	22.26
23040	C	THR	D	610	-96.834	-7.352	45.873	1.00	23.38
23041	O	THR	D	610	-96.152	-7.606	46.865	1.00	23.59
23042	N	SER	D	611	-96.431	-6.556	44.887	1.00	23.59

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**FIGURE 3 SL**

A	B	C	D	E	F	G	H	I	J
23043	CA	SER	D	611	-95.111	-5.923	44.880	1.00	23.09
23044	CB	SER	D	611	-94.866	-5.263	43.533	1.00	23.14
23045	OG	SER	D	611	-94.870	-6.221	42.488	1.00	23.80
23046	C	SER	D	611	-94.981	-4.878	45.993	1.00	23.31
23047	O	SER	D	611	-93.948	-4.797	46.667	1.00	23.41
23048	N	MET	D	612	-96.041	-4.089	46.177	1.00	22.64
23049	CA	MET	D	612	-96.097	-3.081	47.219	1.00	21.73
23050	CB	MET	D	612	-97.403	-2.311	47.109	1.00	21.27
23051	CG	MET	D	612	-97.449	-1.400	45.874	1.00	20.75
23052	SD	MET	D	612	-96.138	-0.132	45.962	1.00	22.54
23053	CE	MET	D	612	-96.942	0.982	47.037	1.00	20.15
23054	C	MET	D	612	-95.945	-3.743	48.593	1.00	22.23
23055	O	MET	D	612	-95.235	-3.233	49.474	1.00	21.46
23056	N	VAL	D	613	-96.611	-4.889	48.753	1.00	21.78
23057	CA	VAL	D	613	-96.542	-5.669	49.981	1.00	21.13
23058	CB	VAL	D	613	-97.625	-6.782	49.969	1.00	21.05
23059	CG1	VAL	D	613	-97.274	-7.913	50.941	1.00	21.49
23060	CG2	VAL	D	613	-99.002	-6.207	50.242	1.00	19.63
23061	C	VAL	D	613	-95.142	-6.282	50.115	1.00	21.21
23062	O	VAL	D	613	-94.525	-6.234	51.180	1.00	22.38
23063	N	LEU	D	614	-94.598	-6.833	49.041	1.00	21.20
23064	CA	LEU	D	614	-93.247	-7.387	49.152	1.00	21.30
23065	CB	LEU	D	614	-92.854	-8.140	47.900	1.00	20.29
23066	CG	LEU	D	614	-93.636	-9.428	47.666	1.00	19.95
23067	CD1	LEU	D	614	-93.462	-10.439	48.841	1.00	19.35
23068	CD2	LEU	D	614	-93.206	-10.047	46.380	1.00	15.59
23069	C	LEU	D	614	-92.170	-6.344	49.497	1.00	22.17
23070	O	LEU	D	614	-91.159	-6.684	50.102	1.00	22.67
23071	N	GLY	D	615	-92.377	-5.083	49.126	1.00	22.27
23072	CA	GLY	D	615	-91.395	-4.061	49.410	1.00	22.40
23073	C	GLY	D	615	-91.726	-3.183	50.605	1.00	23.25
23074	O	GLY	D	615	-91.081	-2.134	50.848	1.00	23.33
23075	N	SER	D	616	-92.711	-3.629	51.376	1.00	23.60
23076	CA	SER	D	616	-93.200	-2.904	52.534	1.00	23.70
23077	CB	SER	D	616	-94.596	-3.413	52.874	1.00	23.88
23078	OG	SER	D	616	-94.509	-4.694	53.490	1.00	25.47
23079	C	SER	D	616	-92.343	-3.029	53.790	1.00	24.16
23080	O	SER	D	616	-92.471	-2.208	54.698	1.00	25.00
23081	N	GLY	D	617	-91.498	-4.049	53.870	1.00	24.13
23082	CA	GLY	D	617	-90.726	-4.287	55.080	1.00	24.51
23083	C	GLY	D	617	-91.497	-4.875	56.253	1.00	25.66
23084	O	GLY	D	617	-91.042	-4.815	57.394	1.00	26.49
23085	N	SER	D	618	-92.654	-5.477	55.997	1.00	25.95
23086	CA	SER	D	618	-93.486	-5.940	57.090	1.00	26.12
23087	CB	SER	D	618	-94.913	-6.191	56.618	1.00	25.79
23088	OG	SER	D	618	-94.958	-7.356	55.822	1.00	25.11
23089	C	SER	D	618	-92.940	-7.214	57.721	1.00	27.16
23090	O	SER	D	618	-93.216	-7.500	58.885	1.00	27.72
23091	N	GLY	D	619	-92.197	-7.991	56.950	1.00	26.87
23092	CA	GLY	D	619	-91.651	-9.226	57.467	1.00	27.32
23093	C	GLY	D	619	-92.606	-10.409	57.474	1.00	27.28

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**FIGURE 3 SM**

A	B	C	D	E	F	G	H	I	J
23094	O	GLY	D	619	-92.235	-11.504	57.864	1.00	27.63
23095	N	VAL	D	620	-93.816	-10.215	56.990	1.00	26.98
23096	CA	VAL	D	620	-94.823	-11.272	57.054	1.00	26.82
23097	CB	VAL	D	620	-96.215	-10.663	57.128	1.00	27.10
23098	CG1	VAL	D	620	-97.299	-11.735	57.065	1.00	27.01
23099	CG2	VAL	D	620	-96.327	-9.803	58.398	1.00	25.69
23100	C	VAL	D	620	-94.751	-12.234	55.886	1.00	26.89
23101	O	VAL	D	620	-95.068	-13.412	56.022	1.00	27.36
23102	N	PHE	D	621	-94.293	-11.741	54.743	1.00	26.24
23103	CA	PHE	D	621	-94.230	-12.554	53.554	1.00	25.32
23104	CB	PHE	D	621	-94.896	-11.806	52.380	1.00	25.19
23105	CG	PHE	D	621	-96.339	-11.424	52.653	1.00	23.16
23106	CD1	PHE	D	621	-96.642	-10.280	53.349	1.00	20.70
23107	CE1	PHE	D	621	-97.964	-9.940	53.621	1.00	19.37
23108	CZ	PHE	D	621	-98.987	-10.744	53.191	1.00	20.10
23109	CE2	PHE	D	621	-98.703	-11.898	52.500	1.00	19.43
23110	CD2	PHE	D	621	-97.385	-12.233	52.228	1.00	21.78
23111	C	PHE	D	621	-92.809	-12.976	53.230	1.00	25.90
23112	O	PHE	D	621	-91.863	-12.192	53.302	1.00	26.42
23113	N	LYS	D	622	-92.658	-14.231	52.874	1.00	26.12
23114	CA	LYS	D	622	-91.356	-14.759	52.530	1.00	27.08
23115	CB	LYS	D	622	-91.336	-16.265	52.812	1.00	26.96
23116	CG	LYS	D	622	-89.995	-16.936	52.586	1.00	28.63
23117	CD	LYS	D	622	-90.086	-18.436	52.926	1.00	30.58
23118	CE	LYS	D	622	-88.716	-19.103	52.885	1.00	33.11
23119	NZ	LYS	D	622	-88.146	-19.197	51.521	1.00	34.13
23120	C	LYS	D	622	-91.074	-14.517	51.048	1.00	26.97
23121	O	LYS	D	622	-89.949	-14.222	50.655	1.00	26.68
23122	N	CYS	D	623	-92.114	-14.624	50.228	1.00	27.32
23123	CA	CYS	D	623	-91.939	-14.514	48.789	1.00	27.63
23124	CB	CYS	D	623	-91.486	-15.855	48.239	1.00	28.04
23125	SG	CYS	D	623	-92.673	-17.133	48.612	1.00	32.49
23126	C	CYS	D	623	-93.240	-14.143	48.116	1.00	26.28
23127	O	CYS	D	623	-94.290	-14.113	48.749	1.00	26.71
23128	N	GLY	D	624	-93.169	-13.870	46.823	1.00	24.98
23129	CA	GLY	D	624	-94.353	-13.530	46.069	1.00	23.48
23130	C	GLY	D	624	-94.092	-13.437	44.577	1.00	23.30
23131	O	GLY	D	624	-92.936	-13.432	44.120	1.00	22.53
23132	N	ILE	D	625	-95.188	-13.372	43.822	1.00	22.21
23133	CA	ILE	D	625	-95.137	-13.374	42.385	1.00	21.40
23134	CB	ILE	D	625	-95.706	-14.692	41.842	1.00	21.55
23135	CG1	ILE	D	625	-95.026	-15.905	42.472	1.00	21.25
23136	CD1	ILE	D	625	-95.620	-17.199	41.976	1.00	22.46
23137	CG2	ILE	D	625	-95.572	-14.742	40.327	1.00	20.26
23138	C	ILE	D	625	-96.022	-12.264	41.865	1.00	21.62
23139	O	ILE	D	625	-97.201	-12.201	42.211	1.00	20.79
23140	N	ALA	D	626	-95.466	-11.399	41.024	1.00	21.33
23141	CA	ALA	D	626	-96.262	-10.317	40.453	1.00	21.56
23142	CB	ALA	D	626	-95.638	-8.956	40.754	1.00	21.64
23143	C	ALA	D	626	-96.331	-10.525	38.960	1.00	21.03
23144	O	ALA	D	626	-95.311	-10.566	38.290	1.00	21.70

**REPLACEMENT SHEET**  
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**FIGURE 3 SN**

A	B	C	D	E	F	G	H	I	J
23145	N	VAL	D	627	-97.534	-10.641	38.434	1.00	20.44
23146	CA	VAL	D	627	-97.698	-10.876	37.010	1.00	19.92
23147	CB	VAL	D	627	-98.638	-12.074	36.779	1.00	19.63
23148	CG1	VAL	D	627	-98.779	-12.364	35.328	1.00	19.32
23149	CG2	VAL	D	627	-98.121	-13.277	37.526	1.00	19.10
23150	C	VAL	D	627	-98.270	-9.636	36.336	1.00	19.71
23151	O	VAL	D	627	-99.321	-9.147	36.741	1.00	20.98
23152	N	ALA	D	628	-97.564	-9.119	35.334	1.00	19.16
23153	CA	ALA	D	628	-97.994	-7.944	34.606	1.00	19.09
23154	CB	ALA	D	628	-99.125	-8.313	33.667	1.00	19.00
23155	C	ALA	D	628	-98.443	-6.846	35.563	1.00	19.80
23156	O	ALA	D	628	-99.564	-6.318	35.442	1.00	20.29
23157	N	PRO	D	629	-97.596	-6.499	36.524	1.00	19.51
23158	CA	PRO	D	629	-97.984	-5.513	37.533	1.00	19.62
23159	CB	PRO	D	629	-96.889	-5.669	38.584	1.00	19.78
23160	CG	PRO	D	629	-95.679	-5.993	37.730	1.00	20.27
23161	CD	PRO	D	629	-96.236	-7.022	36.749	1.00	19.35
23162	C	PRO	D	629	-97.927	-4.088	37.040	1.00	20.11
23163	O	PRO	D	629	-97.120	-3.718	36.174	1.00	20.33
23164	N	VAL	D	630	-98.806	-3.274	37.594	1.00	20.35
23165	CA	VAL	D	630	-98.654	-1.844	37.453	1.00	20.36
23166	CB	VAL	D	630	-99.956	-1.119	37.858	1.00	20.44
23167	CG1	VAL	D	630	-99.658	0.296	38.468	1.00	19.91
23168	CG2	VAL	D	630	-100.903	-1.027	36.674	1.00	19.46
23169	C	VAL	D	630	-97.512	-1.548	38.458	1.00	20.76
23170	O	VAL	D	630	-97.420	-2.207	39.502	1.00	19.76
23171	N	SER	D	631	-96.628	-0.601	38.138	1.00	20.86
23172	CA	SER	D	631	-95.524	-0.284	39.027	1.00	21.41
23173	CB	SER	D	631	-94.183	-0.668	38.404	1.00	21.58
23174	OG	SER	D	631	-93.908	0.098	37.254	1.00	22.64
23175	C	SER	D	631	-95.514	1.186	39.452	1.00	21.56
23176	O	SER	D	631	-95.023	1.506	40.528	1.00	20.61
23177	N	ARG	D	632	-96.002	2.066	38.579	1.00	21.04
23178	CA	ARG	D	632	-96.184	3.465	38.917	1.00	22.20
23179	CB	ARG	D	632	-94.932	4.341	38.755	1.00	23.16
23180	CG	ARG	D	632	-94.545	4.709	37.399	1.00	25.77
23181	CD	ARG	D	632	-94.066	6.140	37.276	1.00	30.32
23182	NE	ARG	D	632	-93.188	6.556	38.351	1.00	32.43
23183	CZ	ARG	D	632	-92.553	7.733	38.389	1.00	35.70
23184	NH1	ARG	D	632	-91.777	8.011	39.428	1.00	34.00
23185	NH2	ARG	D	632	-92.684	8.632	37.395	1.00	34.81
23186	C	ARG	D	632	-97.372	3.964	38.133	1.00	21.99
23187	O	ARG	D	632	-97.580	3.572	36.982	1.00	21.10
23188	N	TRP	D	633	-98.195	4.759	38.808	1.00	21.72
23189	CA	TRP	D	633	-99.493	5.143	38.269	1.00	22.29
23190	CB	TRP	D	633	-100.405	5.680	39.393	1.00	22.18
23191	CG	TRP	D	633	-100.858	4.501	40.246	1.00	22.76
23192	CD1	TRP	D	633	-100.506	4.231	41.540	1.00	20.58
23193	NE1	TRP	D	633	-101.080	3.053	41.947	1.00	20.97
23194	CE2	TRP	D	633	-101.825	2.535	40.916	1.00	21.34
23195	CD2	TRP	D	633	-101.691	3.410	39.822	1.00	20.22

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**FIGURE 3 SO**

A	B	C	D	E	F	G	H	I	J
23196	CE3	TRP	D	633	-102.353	3.095	38.629	1.00	20.65
23197	CZ3	TRP	D	633	-103.099	1.934	38.560	1.00	20.30
23198	CH2	TRP	D	633	-103.204	1.076	39.662	1.00	20.21
23199	CZ2	TRP	D	633	-102.558	1.344	40.840	1.00	19.01
23200	C	TRP	D	633	-99.452	6.006	37.031	1.00	22.40
23201	O	TRP	D	633	-100.365	5.963	36.230	1.00	23.36
23202	N	GLU	D	634	-98.373	6.737	36.832	1.00	23.31
23203	CA	GLU	D	634	-98.252	7.551	35.634	1.00	24.08
23204	CB	GLU	D	634	-97.082	8.534	35.714	1.00	24.74
23205	CG	GLU	D	634	-97.298	9.664	36.714	1.00	26.01
23206	CD	GLU	D	634	-96.482	9.460	37.972	1.00	31.66
23207	OE1	GLU	D	634	-95.612	10.335	38.201	1.00	32.18
23208	OE2	GLU	D	634	-96.691	8.419	38.703	1.00	30.86
23209	C	GLU	D	634	-98.114	6.703	34.391	1.00	23.69
23210	O	GLU	D	634	-98.362	7.200	33.303	1.00	23.35
23211	N	TYR	D	635	-97.718	5.434	34.537	1.00	23.21
23212	CA	TYR	D	635	-97.615	4.548	33.372	1.00	22.92
23213	CB	TYR	D	635	-96.723	3.345	33.640	1.00	22.54
23214	CG	TYR	D	635	-95.283	3.663	33.966	1.00	24.14
23215	CD1	TYR	D	635	-94.726	4.898	33.641	1.00	23.13
23216	CE1	TYR	D	635	-93.418	5.183	33.938	1.00	23.12
23217	CZ	TYR	D	635	-92.646	4.231	34.583	1.00	24.31
23218	OH	TYR	D	635	-91.347	4.502	34.892	1.00	23.90
23219	CE2	TYR	D	635	-93.173	3.005	34.923	1.00	24.61
23220	CD2	TYR	D	635	-94.480	2.723	34.611	1.00	24.33
23221	C	TYR	D	635	-98.959	3.976	32.978	1.00	22.64
23222	O	TYR	D	635	-99.123	3.441	31.878	1.00	22.13
23223	N	TYR	D	636	-99.927	4.025	33.876	1.00	22.22
23224	CA	TYR	D	636	-101.162	3.352	33.526	1.00	22.38
23225	CB	TYR	D	636	-101.788	2.660	34.727	1.00	21.80
23226	CG	TYR	D	636	-102.788	1.640	34.286	1.00	19.84
23227	CD1	TYR	D	636	-102.417	0.625	33.436	1.00	18.32
23228	CE1	TYR	D	636	-103.335	-0.316	32.998	1.00	20.41
23229	CZ	TYR	D	636	-104.628	-0.238	33.413	1.00	20.72
23230	OH	TYR	D	636	-105.537	-1.174	32.967	1.00	24.19
23231	CE2	TYR	D	636	-105.030	0.781	34.259	1.00	20.82
23232	CD2	TYR	D	636	-104.113	1.723	34.673	1.00	18.74
23233	C	TYR	D	636	-102.146	4.258	32.778	1.00	22.84
23234	O	TYR	D	636	-101.933	5.461	32.700	1.00	23.58
23235	N	ASP	D	637	-103.179	3.680	32.178	1.00	23.34
23236	CA	ASP	D	637	-104.079	4.478	31.365	1.00	24.69
23237	CB	ASP	D	637	-105.030	3.616	30.523	1.00	24.97
23238	CG	ASP	D	637	-106.145	3.012	31.328	1.00	25.70
23239	OD1	ASP	D	637	-106.957	3.784	31.853	1.00	26.97
23240	OD2	ASP	D	637	-106.313	1.778	31.453	1.00	26.60
23241	C	ASP	D	637	-104.798	5.545	32.178	1.00	25.32
23242	O	ASP	D	637	-104.842	5.495	33.411	1.00	25.23
23243	N	SER	D	638	-105.354	6.522	31.474	1.00	25.73
23244	CA	SER	D	638	-105.904	7.694	32.132	1.00	25.90
23245	CB	SER	D	638	-105.934	8.843	31.140	1.00	25.38
23246	OG	SER	D	638	-106.815	8.506	30.101	1.00	26.53

**REPLACEMENT SHEET**  
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**FIGURE 3 SP**

A	B	C	D	E	F	G	H	I	J
23247	C	SER	D	638	-107.281	7.516	32.777	1.00	25.91
23248	O	SER	D	638	-107.500	7.960	33.897	1.00	25.61
23249	N	VAL	D	639	-108.218	6.863	32.103	1.00	26.51
23250	CA	VAL	D	639	-109.543	6.834	32.699	1.00	27.09
23251	CB	VAL	D	639	-110.686	6.551	31.688	1.00	27.52
23252	CG1	VAL	D	639	-111.496	5.339	32.069	1.00	29.06
23253	CG2	VAL	D	639	-110.168	6.505	30.248	1.00	28.47
23254	C	VAL	D	639	-109.596	5.992	33.977	1.00	26.75
23255	O	VAL	D	639	-110.272	6.357	34.932	1.00	26.42
23256	N	TYR	D	640	-108.832	4.905	34.014	1.00	26.18
23257	CA	TYR	D	640	-108.798	4.075	35.205	1.00	25.96
23258	CB	TYR	D	640	-108.168	2.719	34.893	1.00	25.44
23259	CG	TYR	D	640	-108.145	1.767	36.066	1.00	24.92
23260	CD1	TYR	D	640	-109.119	0.787	36.205	1.00	24.01
23261	CE1	TYR	D	640	-109.100	-0.084	37.269	1.00	21.51
23262	CZ	TYR	D	640	-108.096	0.010	38.227	1.00	22.81
23263	OH	TYR	D	640	-108.097	-0.872	39.286	1.00	23.49
23264	CE2	TYR	D	640	-107.130	0.967	38.134	1.00	21.03
23265	CD2	TYR	D	640	-107.149	1.846	37.050	1.00	24.50
23266	C	TYR	D	640	-108.032	4.762	36.337	1.00	25.42
23267	O	TYR	D	640	-108.579	5.006	37.400	1.00	25.71
23268	N	THR	D	641	-106.769	5.067	36.080	1.00	25.09
23269	CA	THR	D	641	-105.878	5.672	37.052	1.00	25.10
23270	CB	THR	D	641	-104.534	5.962	36.403	1.00	24.83
23271	OG1	THR	D	641	-103.960	4.743	35.940	1.00	26.06
23272	OG2	THR	D	641	-103.534	6.479	37.441	1.00	24.57
23273	C	THR	D	641	-106.408	6.976	37.630	1.00	25.18
23274	O	THR	D	641	-106.429	7.163	38.848	1.00	24.41
23275	N	GLU	D	642	-106.830	7.872	36.749	1.00	24.77
23276	CA	GLU	D	642	-107.304	9.174	37.187	1.00	25.52
23277	CB	GLU	D	642	-107.435	10.125	35.991	1.00	25.53
23278	CG	GLU	D	642	-106.086	10.541	35.424	1.00	25.78
23279	CD	GLU	D	642	-106.193	11.254	34.090	1.00	26.46
23280	OE1	GLU	D	642	-107.337	11.592	33.676	1.00	23.00
23281	OE2	GLU	D	642	-105.122	11.473	33.469	1.00	27.43
23282	C	GLU	D	642	-108.606	9.070	37.976	1.00	25.69
23283	O	GLU	D	642	-108.879	9.886	38.858	1.00	26.67
23284	N	ARG	D	643	-109.400	8.053	37.686	1.00	25.27
23285	CA	ARG	D	643	-110.625	7.839	38.437	1.00	25.75
23286	CB	ARG	D	643	-111.233	6.507	38.014	1.00	26.11
23287	CG	ARG	D	643	-112.604	6.225	38.580	1.00	26.46
23288	CD	ARG	D	643	-113.448	5.411	37.619	1.00	30.50
23289	NE	ARG	D	643	-112.919	4.068	37.485	1.00	32.80
23290	CZ	ARG	D	643	-112.837	3.381	36.360	1.00	31.23
23291	NH1	ARG	D	643	-112.334	2.160	36.397	1.00	31.11
23292	NH2	ARG	D	643	-113.239	3.895	35.214	1.00	30.58
23293	C	ARG	D	643	-110.356	7.800	39.963	1.00	25.90
23294	O	ARG	D	643	-111.142	8.302	40.767	1.00	24.71
23295	N	TYR	D	644	-109.234	7.184	40.332	1.00	25.76
23296	CA	TYR	D	644	-108.868	7.006	41.723	1.00	26.45
23297	CB	TYR	D	644	-108.476	5.531	41.957	1.00	26.40

**REPLACEMENT SHEET**  
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**FIGURE 3 SQ**

A	B	C	D	E	F	G	H	I	J
23298	CG	TYR	D	644	-109.364	4.543	41.220	1.00	25.41
23299	CD1	TYR	D	644	-110.679	4.338	41.610	1.00	25.27
23300	CE1	TYR	D	644	-111.490	3.447	40.952	1.00	24.47
23301	CZ	TYR	D	644	-111.002	2.750	39.857	1.00	25.81
23302	OH	TYR	D	644	-111.812	1.859	39.198	1.00	25.64
23303	CE2	TYR	D	644	-109.713	2.942	39.432	1.00	25.89
23304	CD2	TYR	D	644	-108.897	3.847	40.123	1.00	26.08
23305	C	TYR	D	644	-107.705	7.905	42.130	1.00	26.93
23306	O	TYR	D	644	-107.502	8.189	43.308	1.00	27.89
23307	N	MET	D	645	-106.933	8.371	41.165	1.00	27.11
23308	CA	MET	D	645	-105.748	9.118	41.523	1.00	27.40
23309	CB	MET	D	645	-104.524	8.520	40.829	1.00	26.37
23310	CG	MET	D	645	-104.119	7.185	41.357	1.00	26.82
23311	SD	MET	D	645	-103.523	7.225	43.053	1.00	28.13
23312	CE	MET	D	645	-101.827	7.877	42.790	1.00	24.04
23313	C	MET	D	645	-105.807	10.586	41.198	1.00	27.88
23314	O	MET	D	645	-104.871	11.308	41.506	1.00	28.19
23315	N	GLY	D	646	-106.880	11.040	40.562	1.00	28.54
23316	CA	GLY	D	646	-106.888	12.418	40.121	1.00	28.79
23317	C	GLY	D	646	-105.752	12.594	39.113	1.00	29.56
23318	O	GLY	D	646	-105.264	11.621	38.514	1.00	29.39
23319	N	LEU	D	647	-105.303	13.827	38.936	1.00	29.71
23320	CA	LEU	D	647	-104.274	14.117	37.944	1.00	30.13
23321	CB	LEU	D	647	-104.607	15.454	37.282	1.00	30.79
23322	CG	LEU	D	647	-105.479	15.373	36.022	1.00	32.03
23323	CD1	LEU	D	647	-106.021	13.998	35.837	1.00	32.06
23324	CD2	LEU	D	647	-106.609	16.389	36.060	1.00	33.49
23325	C	LEU	D	647	-102.884	14.158	38.572	1.00	29.81
23326	O	LEU	D	647	-102.739	14.593	39.702	1.00	30.86
23327	N	PRO	D	648	-101.863	13.686	37.869	1.00	29.42
23328	CA	PRO	D	648	-100.499	13.715	38.400	1.00	29.27
23329	CB	PRO	D	648	-99.788	12.641	37.569	1.00	29.19
23330	CG	PRO	D	648	-100.474	12.645	36.284	1.00	28.08
23331	CD	PRO	D	648	-101.919	13.047	36.542	1.00	29.14
23332	C	PRO	D	648	-99.792	15.061	38.210	1.00	29.74
23333	O	PRO	D	648	-98.744	15.100	37.580	1.00	29.58
23334	N	THR	D	649	-100.363	16.136	38.740	1.00	30.57
23335	CA	THR	D	649	-99.763	17.472	38.651	1.00	31.80
23336	CB	THR	D	649	-100.702	18.440	37.937	1.00	31.39
23337	OG1	THR	D	649	-101.944	18.494	38.654	1.00	33.99
23338	CG2	THR	D	649	-101.101	17.906	36.591	1.00	31.18
23339	C	THR	D	649	-99.533	18.010	40.050	1.00	32.36
23340	O	THR	D	649	-100.146	17.548	41.010	1.00	32.49
23341	N	PRO	D	650	-98.683	19.020	40.173	1.00	33.18
23342	CA	PRO	D	650	-98.400	19.602	41.489	1.00	33.36
23343	CB	PRO	D	650	-97.313	20.651	41.200	1.00	33.52
23344	CG	PRO	D	650	-96.782	20.316	39.830	1.00	33.60
23345	CD	PRO	D	650	-97.962	19.701	39.080	1.00	33.10
23346	C	PRO	D	650	-99.652	20.244	42.100	1.00	34.02
23347	O	PRO	D	650	-99.718	20.423	43.307	1.00	33.80
23348	N	GLU	D	651	-100.651	20.577	41.292	1.00	34.80

**REPLACEMENT SHEET**  
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**FIGURE 3 SR**

A	B	C	D	E	F	G	H	I	J
23349	CA	GLU	D	651	-101.858	21.125	41.903	1.00	35.73
23350	CB	GLU	D	651	-102.394	22.357	41.159	1.00	36.27
23351	CG	GLU	D	651	-102.305	22.323	39.650	1.00	38.03
23352	CD	GLU	D	651	-100.901	22.573	39.124	1.00	39.96
23353	OE1	GLU	D	651	-100.606	22.074	38.006	1.00	39.36
23354	OE2	GLU	D	651	-100.109	23.270	39.807	1.00	39.77
23355	C	GLU	D	651	-102.954	20.091	42.211	1.00	35.65
23356	O	GLU	D	651	-103.973	20.423	42.834	1.00	35.50
23357	N	ASP	D	652	-102.725	18.829	41.827	1.00	35.10
23358	CA	ASP	D	652	-103.686	17.778	42.146	1.00	34.67
23359	CB	ASP	D	652	-104.341	17.182	40.884	1.00	35.01
23360	CG	ASP	D	652	-105.584	16.345	41.200	1.00	36.32
23361	OD1	ASP	D	652	-106.426	16.135	40.285	1.00	39.06
23362	OD2	ASP	D	652	-105.814	15.854	42.332	1.00	36.42
23363	C	ASP	D	652	-103.070	16.695	43.027	1.00	33.99
23364	O	ASP	D	652	-103.006	16.851	44.240	1.00	34.82
23365	N	ASN	D	653	-102.588	15.603	42.445	1.00	32.68
23366	CA	ASN	D	653	-102.123	14.520	43.299	1.00	31.77
23367	CB	ASN	D	653	-103.154	13.387	43.280	1.00	30.55
23368	CG	ASN	D	653	-103.142	12.555	44.552	1.00	29.09
23369	OD1	ASN	D	653	-102.564	12.946	45.573	1.00	26.00
23370	ND2	ASN	D	653	-103.815	11.404	44.504	1.00	26.65
23371	C	ASN	D	653	-100.730	13.976	43.006	1.00	31.49
23372	O	ASN	D	653	-100.435	12.850	43.358	1.00	31.75
23373	N	LEU	D	654	-99.863	14.774	42.390	1.00	31.54
23374	CA	LEU	D	654	-98.547	14.264	42.003	1.00	30.92
23375	CB	LEU	D	654	-97.725	15.319	41.292	1.00	31.00
23376	CG	LEU	D	654	-96.359	14.774	40.877	1.00	31.08
23377	CD1	LEU	D	654	-95.323	15.888	40.781	1.00	32.92
23378	CD2	LEU	D	654	-96.457	14.000	39.578	1.00	27.02
23379	C	LEU	D	654	-97.708	13.657	43.124	1.00	30.82
23380	O	LEU	D	654	-96.990	12.690	42.904	1.00	30.53
23381	N	ASP	D	655	-97.764	14.218	44.318	1.00	30.70
23382	CA	ASP	D	655	-96.947	13.652	45.376	1.00	31.26
23383	CB	ASP	D	655	-96.979	14.507	46.637	1.00	31.48
23384	CG	ASP	D	655	-96.491	15.922	46.383	1.00	34.42
23385	OD1	ASP	D	655	-95.630	16.118	45.483	1.00	34.31
23386	OD2	ASP	D	655	-96.934	16.900	47.029	1.00	38.79
23387	C	ASP	D	655	-97.355	12.210	45.668	1.00	30.63
23388	O	ASP	D	655	-96.499	11.338	45.813	1.00	30.49
23389	N	HIS	D	656	-98.648	11.934	45.743	1.00	29.83
23390	CA	HIS	D	656	-98.994	10.550	46.002	1.00	29.73
23391	CB	HIS	D	656	-100.438	10.328	46.446	1.00	29.65
23392	CG	HIS	D	656	-100.671	8.920	46.884	1.00	30.71
23393	ND1	HIS	D	656	-99.932	8.331	47.889	1.00	30.42
23394	OE1	HIS	D	656	-100.300	7.072	48.021	1.00	30.17
23395	OE2	HIS	D	656	-101.242	6.816	47.131	1.00	28.07
23396	CD2	HIS	D	656	-101.478	7.952	46.394	1.00	30.82
23397	C	HIS	D	656	-98.630	9.636	44.819	1.00	28.97
23398	O	HIS	D	656	-98.252	8.501	45.036	1.00	28.51
23399	N	TYR	D	657	-98.718	10.147	43.588	1.00	28.14



**REPLACEMENT SHEET**  
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**FIGURE 3 SS**

A	B	C	D	E	F	G	H	I	J
23400	CA	TYR	D	657	-98.286	9.375	42.424	1.00	28.19
23401	CB	TYR	D	657	-98.376	10.193	41.139	1.00	27.67
23402	CG	TYR	D	657	-99.674	10.121	40.365	1.00	26.53
23403	CD1	TYR	D	657	-99.802	9.308	39.255	1.00	24.07
23404	CE1	TYR	D	657	-100.986	9.275	38.524	1.00	23.58
23405	CZ	TYR	D	657	-102.041	10.075	38.907	1.00	24.30
23406	OH	TYR	D	657	-103.245	10.065	38.206	1.00	20.81
23407	CE2	TYR	D	657	-101.912	10.903	40.001	1.00	23.39
23408	CD2	TYR	D	657	-100.743	10.935	40.701	1.00	25.39
23409	C	TYR	D	657	-96.831	8.985	42.554	1.00	28.74
23410	O	TYR	D	657	-96.433	7.886	42.167	1.00	28.89
23411	N	ARG	D	658	-96.024	9.899	43.077	1.00	29.24
23412	CA	ARG	D	658	-94.595	9.664	43.158	1.00	29.78
23413	CB	ARG	D	658	-93.843	10.986	43.273	1.00	29.78
23414	CG	ARG	D	658	-93.840	11.758	41.990	1.00	30.49
23415	CD	ARG	D	658	-93.500	10.875	40.774	1.00	33.83
23416	NE	ARG	D	658	-93.915	11.491	39.519	1.00	32.92
23417	CZ	ARG	D	658	-93.256	12.469	38.929	1.00	33.21
23418	NH1	ARG	D	658	-92.145	12.928	39.478	1.00	33.18
23419	NH2	ARG	D	658	-93.701	12.980	37.786	1.00	33.18
23420	C	ARG	D	658	-94.269	8.807	44.344	1.00	30.14
23421	O	ARG	D	658	-93.181	8.244	44.439	1.00	30.68
23422	N	ASN	D	659	-95.218	8.731	45.257	1.00	30.69
23423	CA	ASN	D	659	-95.044	7.998	46.496	1.00	31.33
23424	CB	ASN	D	659	-95.796	8.704	47.625	1.00	32.34
23425	CG	ASN	D	659	-94.874	9.237	48.681	1.00	36.48
23426	OD1	ASN	D	659	-94.189	10.246	48.469	1.00	41.41
23427	ND2	ASN	D	659	-94.811	8.542	49.827	1.00	39.55
23428	C	ASN	D	659	-95.549	6.578	46.444	1.00	30.22
23429	O	ASN	D	659	-95.230	5.802	47.316	1.00	30.45
23430	N	SER	D	660	-96.362	6.248	45.444	1.00	28.90
23431	CA	SER	D	660	-96.971	4.929	45.403	1.00	27.43
23432	CB	SER	D	660	-98.493	5.075	45.292	1.00	27.34
23433	OG	SER	D	660	-98.852	5.896	44.191	1.00	26.77
23434	C	SER	D	660	-96.400	3.989	44.318	1.00	26.29
23435	O	SER	D	660	-97.068	3.064	43.845	1.00	25.76
23436	N	THR	D	661	-95.155	4.221	43.941	1.00	24.89
23437	CA	THR	D	661	-94.514	3.377	42.960	1.00	23.90
23438	CB	THR	D	661	-93.373	4.143	42.316	1.00	24.52
23439	OG1	THR	D	661	-92.362	4.347	43.308	1.00	25.03
23440	CG2	THR	D	661	-93.800	5.542	41.940	1.00	23.39
23441	C	THR	D	661	-93.891	2.180	43.653	1.00	22.71
23442	O	THR	D	661	-93.467	2.280	44.804	1.00	21.58
23443	N	VAL	D	662	-93.778	1.054	42.961	1.00	21.39
23444	CA	VAL	D	662	-93.064	-0.028	43.610	1.00	20.70
23445	CB	VAL	D	662	-93.480	-1.500	43.158	1.00	20.31
23446	CG1	VAL	D	662	-94.804	-1.542	42.414	1.00	17.64
23447	CG2	VAL	D	662	-92.383	-2.269	42.485	1.00	16.38
23448	C	VAL	D	662	-91.563	0.236	43.600	1.00	21.43
23449	O	VAL	D	662	-90.860	-0.163	44.525	1.00	22.11
23450	N	MET	D	663	-91.078	0.929	42.569	1.00	22.18

**REPLACEMENT SHEET**  
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**FIGURE 3 (ST**

A	B	C	D	E	F	G	H	I	J
23451	CA	MET	D	663	-89.658	1.265	42.469	1.00	22.22
23452	CB	MET	D	663	-89.362	2.125	41.223	1.00	22.16
23453	CG	MET	D	663	-89.309	1.330	39.884	1.00	20.41
23454	SD	MET	D	663	-90.971	0.820	39.315	1.00	20.24
23455	CE	MET	D	663	-91.665	2.361	38.782	1.00	17.95
23456	C	MET	D	663	-89.071	1.930	43.709	1.00	23.01
23457	O	MET	D	663	-87.908	1.695	44.039	1.00	24.00
23458	N	SER	D	664	-89.840	2.751	44.409	1.00	23.37
23459	CA	SER	D	664	-89.273	3.427	45.571	1.00	24.66
23460	CB	SER	D	664	-90.184	4.544	46.035	1.00	25.02
23461	OG	SER	D	664	-91.461	4.013	46.338	1.00	27.47
23462	C	SER	D	664	-89.039	2.465	46.740	1.00	25.06
23463	O	SER	D	664	-88.336	2.799	47.696	1.00	24.70
23464	N	ARG	D	665	-89.614	1.268	46.649	1.00	24.56
23465	CA	ARG	D	665	-89.456	0.284	47.700	1.00	24.85
23466	CB	ARG	D	665	-90.798	-0.369	47.999	1.00	24.78
23467	CG	ARG	D	665	-91.809	0.640	48.551	1.00	25.88
23468	CD	ARG	D	665	-93.214	0.129	48.642	1.00	26.79
23469	NE	ARG	D	665	-94.129	1.112	49.216	1.00	26.35
23470	CZ	ARG	D	665	-95.170	0.782	49.957	1.00	27.60
23471	NH1	ARG	D	665	-95.418	-0.496	50.206	1.00	28.66
23472	NH2	ARG	D	665	-95.967	1.715	50.455	1.00	29.38
23473	C	ARG	D	665	-88.441	-0.766	47.343	1.00	24.22
23474	O	ARG	D	665	-88.350	-1.778	48.011	1.00	24.33
23475	N	ALA	D	666	-87.675	-0.518	46.292	1.00	24.52
23476	CA	ALA	D	666	-86.732	-1.511	45.771	1.00	24.78
23477	CB	ALA	D	666	-85.950	-0.935	44.627	1.00	24.85
23478	C	ALA	D	666	-85.784	-2.118	46.790	1.00	25.15
23479	O	ALA	D	666	-85.509	-3.314	46.751	1.00	25.19
23480	N	GLU	D	667	-85.271	-1.302	47.697	1.00	25.94
23481	CA	GLU	D	667	-84.308	-1.783	48.683	1.00	26.94
23482	CB	GLU	D	667	-83.817	-0.616	49.578	1.00	27.70
23483	CG	GLU	D	667	-82.794	-0.998	50.658	1.00	31.37
23484	CD	GLU	D	667	-81.432	-1.370	50.083	1.00	34.98
23485	OE1	GLU	D	667	-80.668	-2.100	50.756	1.00	36.00
23486	OE2	GLU	D	667	-81.123	-0.940	48.947	1.00	37.23
23487	C	GLU	D	667	-84.913	-2.892	49.526	1.00	26.63
23488	O	GLU	D	667	-84.239	-3.830	49.896	1.00	26.96
23489	N	ASN	D	668	-86.197	-2.792	49.819	1.00	26.69
23490	CA	ASN	D	668	-86.852	-3.772	50.677	1.00	26.46
23491	CB	ASN	D	668	-88.185	-3.209	51.165	1.00	27.48
23492	CG	ASN	D	668	-87.996	-2.144	52.216	1.00	29.06
23493	OD1	ASN	D	668	-87.017	-2.174	52.925	1.00	33.18
23494	ND2	ASN	D	668	-88.918	-1.209	52.315	1.00	31.95
23495	C	ASN	D	668	-87.082	-5.133	50.049	1.00	25.84
23496	O	ASN	D	668	-87.401	-6.095	50.757	1.00	25.33
23497	N	PHE	D	669	-86.965	-5.228	48.727	1.00	24.32
23498	CA	PHE	D	669	-87.143	-6.540	48.109	1.00	23.47
23499	CB	PHE	D	669	-87.296	-6.454	46.589	1.00	22.54
23500	CG	PHE	D	669	-88.684	-6.046	46.141	1.00	21.60
23501	CD1	PHE	D	669	-89.139	-4.736	46.343	1.00	19.42

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**FIGURE 3 SU**

A	B	C	D	E	F	G	H	I	J
23502	CE1	PHE	D	669	-90.390	-4.342	45.956	1.00	17.25
23503	CZ	PHE	D	669	-91.226	-5.259	45.316	1.00	20.42
23504	CE2	PHE	D	669	-90.779	-6.576	45.097	1.00	21.06
23505	CD2	PHE	D	669	-89.519	-6.958	45.517	1.00	19.03
23506	C	PHE	D	669	-85.971	-7.442	48.512	1.00	23.35
23507	O	PHE	D	669	-85.915	-8.609	48.140	1.00	22.93
23508	N	LYS	D	670	-85.031	-6.894	49.271	1.00	23.33
23509	CA	LYS	D	670	-83.916	-7.711	49.740	1.00	24.37
23510	CB	LYS	D	670	-82.838	-6.849	50.393	1.00	24.38
23511	CG	LYS	D	670	-82.002	-6.077	49.413	1.00	27.50
23512	CD	LYS	D	670	-80.915	-5.305	50.156	1.00	29.30
23513	CE	LYS	D	670	-80.001	-4.606	49.181	1.00	30.53
23514	NZ	LYS	D	670	-79.113	-3.649	49.894	1.00	33.24
23515	C	LYS	D	670	-84.438	-8.656	50.789	1.00	23.62
23516	O	LYS	D	670	-83.792	-9.608	51.129	1.00	23.80
23517	N	GLN	D	671	-85.614	-8.347	51.309	1.00	23.78
23518	CA	GLN	D	671	-86.205	-9.097	52.402	1.00	23.50
23519	CB	GLN	D	671	-86.968	-8.115	53.317	1.00	22.86
23520	CG	GLN	D	671	-86.097	-6.988	53.845	1.00	20.84
23521	CD	GLN	D	671	-86.860	-5.953	54.653	1.00	24.55
23522	OE1	GLN	D	671	-87.885	-5.420	54.196	1.00	23.77
23523	NE2	GLN	D	671	-86.355	-5.644	55.859	1.00	24.62
23524	C	GLN	D	671	-87.126	-10.233	51.921	1.00	23.80
23525	O	GLN	D	671	-87.734	-10.937	52.735	1.00	23.47
23526	N	VAL	D	672	-87.218	-10.421	50.606	1.00	23.40
23527	CA	VAL	D	672	-88.134	-11.417	50.071	1.00	23.33
23528	CB	VAL	D	672	-89.474	-10.786	49.606	1.00	23.68
23529	CG1	VAL	D	672	-90.161	-10.038	50.732	1.00	22.21
23530	CG2	VAL	D	672	-89.225	-9.834	48.423	1.00	23.11
23531	C	VAL	D	672	-87.559	-12.051	48.950	1.00	23.60
23532	O	VAL	D	672	-86.540	-11.638	48.338	1.00	23.50
23533	N	GLU	D	673	-88.239	-13.080	48.389	1.00	24.36
23534	CA	GLU	D	673	-87.898	-13.736	47.151	1.00	24.68
23535	CB	GLU	D	673	-87.811	-15.243	47.384	1.00	25.87
23536	CG	GLU	D	673	-86.707	-15.589	48.378	1.00	31.11
23537	CD	GLU	D	673	-87.158	-16.595	49.427	1.00	38.23
23538	OE1	GLU	D	673	-87.836	-17.584	49.062	1.00	40.78
23539	OE2	GLU	D	673	-86.823	-16.405	50.622	1.00	42.84
23540	C	GLU	D	673	-89.035	-13.357	46.201	1.00	23.74
23541	O	GLU	D	673	-90.220	-13.564	46.513	1.00	23.16
23542	N	TYR	D	674	-88.668	-12.803	45.051	1.00	23.00
23543	CA	TYR	D	674	-89.626	-12.190	44.129	1.00	22.63
23544	CB	TYR	D	674	-89.299	-10.702	44.023	1.00	22.84
23545	CG	TYR	D	674	-90.225	-9.782	43.251	1.00	21.85
23546	CD1	TYR	D	674	-91.612	-9.768	43.463	1.00	22.71
23547	CE1	TYR	D	674	-92.441	-8.860	42.771	1.00	22.21
23548	CZ	TYR	D	674	-91.850	-7.946	41.874	1.00	22.62
23549	OH	TYR	D	674	-92.605	-7.034	41.173	1.00	23.00
23550	CE2	TYR	D	674	-90.498	-7.951	41.672	1.00	20.57
23551	CD2	TYR	D	674	-89.696	-8.862	42.357	1.00	21.62
23552	C	TYR	D	674	-89.562	-12.775	42.754	1.00	22.26

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**FIGURE 3 SV**

A	B	C	D	E	F	G	H	I	J
23553	O	TYR	D	674	-88.478	-13.015	42.221	1.00	21.96
23554	N	LEU	D	675	-90.735	-12.993	42.177	1.00	22.14
23555	CA	LEU	D	675	-90.822	-13.490	40.818	1.00	22.26
23556	CB	LEU	D	675	-91.456	-14.890	40.762	1.00	22.37
23557	CG	LEU	D	675	-91.857	-15.441	39.383	1.00	21.98
23558	CD1	LEU	D	675	-90.692	-15.466	38.445	1.00	19.90
23559	CD2	LEU	D	675	-92.388	-16.824	39.538	1.00	22.13
23560	C	LEU	D	675	-91.652	-12.466	40.076	1.00	22.02
23561	O	LEU	D	675	-92.773	-12.181	40.469	1.00	21.37
23562	N	LEU	D	676	-91.071	-11.905	39.014	1.00	22.03
23563	CA	LEU	D	676	-91.705	-10.848	38.242	1.00	21.86
23564	CB	LEU	D	676	-90.812	-9.612	38.225	1.00	21.78
23565	CG	LEU	D	676	-91.271	-8.438	37.356	1.00	20.70
23566	CD1	LEU	D	676	-90.127	-7.441	37.272	1.00	20.09
23567	CD2	LEU	D	676	-92.502	-7.791	37.931	1.00	17.32
23568	C	LEU	D	676	-91.934	-11.337	36.823	1.00	21.76
23569	O	LEU	D	676	-90.991	-11.737	36.122	1.00	21.74
23570	N	ILE	D	677	-93.186	-11.292	36.396	1.00	21.49
23571	CA	ILE	D	677	-93.536	-11.854	35.119	1.00	21.70
23572	CB	ILE	D	677	-94.364	-13.092	35.387	1.00	21.59
23573	CG1	ILE	D	677	-93.534	-14.087	36.228	1.00	21.36
23574	CD1	ILE	D	677	-94.300	-15.327	36.633	1.00	19.60
23575	CG2	ILE	D	677	-94.893	-13.706	34.073	1.00	21.51
23576	C	ILE	D	677	-94.317	-10.856	34.275	1.00	22.38
23577	O	ILE	D	677	-95.221	-10.179	34.786	1.00	22.88
23578	N	HIS	D	678	-94.009	-10.782	32.982	1.00	21.54
23579	CA	HIS	D	678	-94.726	-9.840	32.138	1.00	21.73
23580	CB	HIS	D	678	-94.148	-8.434	32.355	1.00	21.41
23581	CG	HIS	D	678	-95.136	-7.339	32.116	1.00	20.87
23582	ND1	HIS	D	678	-95.326	-6.308	33.007	1.00	18.16
23583	CE1	HIS	D	678	-96.270	-5.504	32.547	1.00	20.39
23584	NE2	HIS	D	678	-96.688	-5.973	31.383	1.00	21.36
23585	CD2	HIS	D	678	-96.004	-7.127	31.096	1.00	18.42
23586	C	HIS	D	678	-94.686	-10.199	30.650	1.00	21.66
23587	O	HIS	D	678	-93.671	-10.653	30.156	1.00	21.22
23588	N	GLY	D	679	-95.805	-10.005	29.954	1.00	22.01
23589	CA	GLY	D	679	-95.882	-10.236	28.526	1.00	21.96
23590	C	GLY	D	679	-95.293	-9.048	27.790	1.00	22.74
23591	O	GLY	D	679	-95.645	-7.917	28.089	1.00	23.15
23592	N	THR	D	680	-94.417	-9.278	26.811	1.00	23.16
23593	CA	THR	D	680	-93.796	-8.153	26.109	1.00	23.51
23594	CB	THR	D	680	-92.580	-8.620	25.306	1.00	23.74
23595	OG1	THR	D	680	-93.010	-9.481	24.236	1.00	24.46
23596	CG2	THR	D	680	-91.691	-9.502	26.175	1.00	20.99
23597	C	THR	D	680	-94.746	-7.353	25.212	1.00	24.43
23598	O	THR	D	680	-94.414	-6.251	24.781	1.00	24.65
23599	N	ALA	D	681	-95.936	-7.894	24.960	1.00	24.82
23600	CA	ALA	D	681	-96.895	-7.250	24.087	1.00	25.27
23601	CB	ALA	D	681	-97.225	-8.162	22.879	1.00	25.14
23602	C	ALA	D	681	-98.159	-6.900	24.862	1.00	25.79
23603	O	ALA	D	681	-99.280	-6.920	24.325	1.00	26.71

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**FIGURE 3 SW**

A	B	C	D	E	F	G	H	I	J
23604	N	ASP	D	682	-97.976	-6.599	26.140	1.00	25.58
23605	CA	ASP	D	682	-99.081	-6.214	26.986	1.00	24.26
23606	CB	ASP	D	682	-98.642	-6.316	28.432	1.00	24.03
23607	CG	ASP	D	682	-99.783	-6.199	29.387	1.00	23.05
23608	OD1	ASP	D	682	-99.778	-6.903	30.430	1.00	23.38
23609	OD2	ASP	D	682	-100.740	-5.433	29.174	1.00	21.88
23610	C	ASP	D	682	-99.418	-4.779	26.622	1.00	24.58
23611	O	ASP	D	682	-98.620	-3.862	26.879	1.00	24.35
23612	N	ASP	D	683	-100.589	-4.593	26.023	1.00	24.45
23613	CA	ASP	D	683	-101.022	-3.300	25.515	1.00	24.69
23614	CB	ASP	D	683	-101.995	-3.509	24.372	1.00	24.67
23615	CG	ASP	D	683	-103.120	-4.386	24.752	1.00	24.79
23616	OD1	ASP	D	683	-102.890	-5.615	24.805	1.00	25.70
23617	OD2	ASP	D	683	-104.267	-3.960	25.029	1.00	24.84
23618	C	ASP	D	683	-101.746	-2.507	26.568	1.00	24.92
23619	O	ASP	D	683	-102.032	-1.309	26.402	1.00	24.30
23620	N	ASN	D	684	-102.060	-3.212	27.647	1.00	24.70
23621	CA	ASN	D	684	-102.800	-2.669	28.750	1.00	23.71
23622	CB	ASN	D	684	-103.704	-3.753	29.307	1.00	23.67
23623	CG	ASN	D	684	-104.729	-3.216	30.259	1.00	23.03
23624	OD1	ASN	D	684	-105.777	-3.811	30.444	1.00	26.22
23625	ND2	ASN	D	684	-104.430	-2.102	30.878	1.00	22.01
23626	C	ASN	D	684	-101.798	-2.178	29.780	1.00	23.32
23627	O	ASN	D	684	-101.558	-0.971	29.901	1.00	22.78
23628	N	VAL	D	685	-101.231	-3.088	30.563	1.00	22.67
23629	CA	VAL	D	685	-100.132	-2.629	31.411	1.00	21.98
23630	CB	VAL	D	685	-100.272	-2.932	32.943	1.00	22.73
23631	CG1	VAL	D	685	-101.492	-3.787	33.262	1.00	21.21
23632	CG2	VAL	D	685	-98.970	-3.382	33.583	1.00	22.59
23633	C	VAL	D	685	-98.850	-2.986	30.716	1.00	21.40
23634	O	VAL	D	685	-98.478	-4.154	30.543	1.00	21.30
23635	N	HIS	D	686	-98.211	-1.932	30.251	1.00	20.86
23636	CA	HIS	D	686	-97.066	-2.037	29.370	1.00	20.94
23637	CB	HIS	D	686	-96.757	-0.652	28.814	1.00	19.78
23638	CG	HIS	D	686	-97.954	-0.024	28.173	1.00	19.37
23639	ND1	HIS	D	686	-98.243	1.321	28.263	1.00	16.50
23640	CE1	HIS	D	686	-99.368	1.567	27.612	1.00	19.38
23641	NE2	HIS	D	686	-99.818	0.430	27.105	1.00	19.51
23642	CD2	HIS	D	686	-98.956	-0.579	27.447	1.00	17.66
23643	C	HIS	D	686	-95.876	-2.723	30.006	1.00	21.02
23644	O	HIS	D	686	-95.616	-2.539	31.179	1.00	21.72
23645	N	PHE	D	687	-95.189	-3.558	29.237	1.00	21.34
23646	CA	PHE	D	687	-93.983	-4.225	29.739	1.00	20.81
23647	CB	PHE	D	687	-93.244	-4.885	28.596	1.00	20.15
23648	CG	PHE	D	687	-92.055	-5.702	29.028	1.00	18.91
23649	CD1	PHE	D	687	-92.217	-7.006	29.439	1.00	17.67
23650	CE1	PHE	D	687	-91.120	-7.771	29.831	1.00	17.81
23651	CZ	PHE	D	687	-89.870	-7.232	29.792	1.00	16.78
23652	CE2	PHE	D	687	-89.687	-5.931	29.380	1.00	18.33
23653	CD2	PHE	D	687	-90.776	-5.168	28.992	1.00	16.92
23654	C	PHE	D	687	-93.085	-3.212	30.435	1.00	21.54

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FIGURE 3 SX

A	B	C	D	E	F	G	H	I	J
23655	O	PHE	D	687	-92.386	-3.546	31.398	1.00	22.37
23656	N	GLN	D	688	-93.123	-1.969	29.957	1.00	21.62
23657	CA	GLN	D	688	-92.382	-0.853	30.573	1.00	21.99
23658	CB	GLN	D	688	-92.986	0.489	30.082	1.00	21.49
23659	CG	GLN	D	688	-92.732	1.696	30.977	1.00	21.34
23660	CD	GLN	D	688	-93.623	2.891	30.629	1.00	20.42
23661	OE1	GLN	D	688	-94.790	2.715	30.353	1.00	21.30
23662	NE2	GLN	D	688	-93.062	4.094	30.637	1.00	18.03
23663	C	GLN	D	688	-92.478	-0.932	32.086	1.00	21.77
23664	O	GLN	D	688	-91.512	-0.778	32.831	1.00	22.49
23665	N	GLN	D	689	-93.687	-1.173	32.537	1.00	21.98
23666	CA	GLN	D	689	-93.997	-1.200	33.953	1.00	22.02
23667	CB	GLN	D	689	-95.476	-1.525	34.049	1.00	21.84
23668	CG	GLN	D	689	-96.174	-1.035	35.257	1.00	25.01
23669	CD	GLN	D	689	-97.016	0.225	35.060	1.00	23.27
23670	OE1	GLN	D	689	-96.955	1.084	35.896	1.00	26.17
23671	NE2	GLN	D	689	-97.831	0.299	34.008	1.00	22.99
23672	C	GLN	D	689	-93.082	-2.182	34.720	1.00	22.00
23673	O	GLN	D	689	-92.516	-1.843	35.763	1.00	22.48
23674	N	SER	D	690	-92.908	-3.398	34.203	1.00	21.84
23675	CA	SER	D	690	-92.023	-4.356	34.849	1.00	21.13
23676	CB	SER	D	690	-92.373	-5.796	34.438	1.00	21.43
23677	CG	SER	D	690	-93.582	-6.212	35.034	1.00	21.44
23678	C	SER	D	690	-90.574	-4.068	34.496	1.00	20.96
23679	O	SER	D	690	-89.685	-4.366	35.275	1.00	21.48
23680	N	ALA	D	691	-90.328	-3.507	33.312	1.00	20.62
23681	CA	ALA	D	691	-88.970	-3.153	32.913	1.00	20.80
23682	CB	ALA	D	691	-88.936	-2.595	31.467	1.00	20.67
23683	C	ALA	D	691	-88.351	-2.152	33.884	1.00	20.77
23684	O	ALA	D	691	-87.137	-2.145	34.095	1.00	21.27
23685	N	GLN	D	692	-89.183	-1.296	34.457	1.00	20.70
23686	CA	GLN	D	692	-88.725	-0.311	35.438	1.00	20.86
23687	CB	GLN	D	692	-89.684	0.888	35.491	1.00	21.00
23688	CG	GLN	D	692	-89.700	1.747	34.223	1.00	22.12
23689	CD	GLN	D	692	-88.435	2.575	34.012	1.00	23.01
23690	OE1	GLN	D	692	-87.472	2.468	34.770	1.00	26.51
23691	NE2	GLN	D	692	-88.439	3.405	32.976	1.00	24.59
23692	C	GLN	D	692	-88.592	-0.944	36.822	1.00	20.78
23693	O	GLN	D	692	-87.705	-0.588	37.583	1.00	20.62
23694	N	ILE	D	693	-89.467	-1.888	37.158	1.00	20.68
23695	CA	ILE	D	693	-89.302	-2.574	38.445	1.00	20.87
23696	CB	ILE	D	693	-90.428	-3.603	38.736	1.00	20.42
23697	CG1	ILE	D	693	-91.712	-2.880	39.093	1.00	19.89
23698	CD1	ILE	D	693	-92.905	-3.825	39.351	1.00	16.39
23699	CG2	ILE	D	693	-90.035	-4.495	39.924	1.00	20.06
23700	C	ILE	D	693	-87.976	-3.285	38.476	1.00	20.52
23701	O	ILE	D	693	-87.219	-3.168	39.422	1.00	21.24
23702	N	SER	D	694	-87.693	-4.037	37.422	1.00	21.10
23703	CA	SER	D	694	-86.468	-4.818	37.370	1.00	20.77
23704	CB	SER	D	694	-86.467	-5.707	36.129	1.00	21.03
23705	OG	SER	D	694	-86.308	-4.942	34.945	1.00	21.23

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**FIGURE 3 SY**

A	B	C	D	E	F	G	H	I	J
23706	C	SER	D	694	-85.218	-3.962	37.384	1.00	20.65
23707	O	SER	D	694	-84.209	-4.374	37.913	1.00	20.94
23708	N	LYS	D	695	-85.267	-2.792	36.754	1.00	20.75
23709	CA	LYS	D	695	-84.109	-1.912	36.703	1.00	20.30
23710	CB	LYS	D	695	-84.316	-0.806	35.647	1.00	20.51
23711	CG	LYS	D	695	-83.226	0.253	35.635	1.00	19.10
23712	CD	LYS	D	695	-83.052	0.919	34.260	1.00	18.50
23713	CE	LYS	D	695	-84.301	1.678	33.807	1.00	19.63
23714	NZ	LYS	D	695	-84.671	2.888	34.658	1.00	23.49
23715	C	LYS	D	695	-83.891	-1.308	38.078	1.00	20.61
23716	O	LYS	D	695	-82.785	-1.113	38.509	1.00	20.27
23717	N	ALA	D	696	-84.957	-1.016	38.788	1.00	21.51
23718	CA	ALA	D	696	-84.772	-0.475	40.119	1.00	23.18
23719	CB	ALA	D	696	-86.082	0.086	40.647	1.00	22.96
23720	C	ALA	D	696	-84.196	-1.546	41.064	1.00	24.04
23721	O	ALA	D	696	-83.400	-1.233	41.946	1.00	25.62
23722	N	LEU	D	697	-84.584	-2.801	40.877	1.00	24.70
23723	CA	LEU	D	697	-84.048	-3.893	41.711	1.00	25.61
23724	CB	LEU	D	697	-84.843	-5.186	41.515	1.00	25.69
23725	CG	LEU	D	697	-86.288	-5.178	42.048	1.00	26.26
23726	CD1	LEU	D	697	-86.968	-6.530	41.876	1.00	26.82
23727	CD2	LEU	D	697	-86.304	-4.787	43.504	1.00	28.62
23728	C	LEU	D	697	-82.583	-4.140	41.404	1.00	25.90
23729	O	LEU	D	697	-81.772	-4.330	42.309	1.00	26.11
23730	N	VAL	D	698	-82.237	-4.134	40.121	1.00	26.07
23731	CA	VAL	D	698	-80.851	-4.304	39.735	1.00	25.49
23732	CB	VAL	D	698	-80.704	-4.237	38.207	1.00	25.71
23733	CG1	VAL	D	698	-79.244	-4.082	37.820	1.00	23.66
23734	CG2	VAL	D	698	-81.313	-5.488	37.555	1.00	24.81
23735	C	VAL	D	698	-80.042	-3.171	40.336	1.00	26.30
23736	O	VAL	D	698	-78.927	-3.355	40.865	1.00	26.31
23737	N	ASP	D	699	-80.606	-1.974	40.255	1.00	26.42
23738	CA	ASP	D	699	-79.901	-0.815	40.735	1.00	27.19
23739	CB	ASP	D	699	-80.598	0.455	40.281	1.00	27.83
23740	CG	ASP	D	699	-80.334	0.748	38.820	1.00	31.61
23741	OD1	ASP	D	699	-80.873	1.747	38.312	1.00	34.02
23742	OD2	ASP	D	699	-79.614	0.011	38.094	1.00	35.99
23743	C	ASP	D	699	-79.538	-0.802	42.231	1.00	26.39
23744	O	ASP	D	699	-78.557	-0.188	42.596	1.00	26.84
23745	N	VAL	D	700	-80.302	-1.480	43.083	1.00	25.93
23746	CA	VAL	D	700	-79.959	-1.529	44.515	1.00	25.70
23747	CB	VAL	D	700	-81.141	-1.142	45.464	1.00	25.71
23748	CG1	VAL	D	700	-81.578	0.292	45.252	1.00	24.57
23749	CG2	VAL	D	700	-82.323	-2.091	45.296	1.00	26.35
23750	C	VAL	D	700	-79.419	-2.902	44.905	1.00	25.77
23751	O	VAL	D	700	-79.240	-3.190	46.069	1.00	25.50
23752	N	GLY	D	701	-79.180	-3.753	43.915	1.00	26.22
23753	CA	GLY	D	701	-78.559	-5.044	44.146	1.00	26.35
23754	C	GLY	D	701	-79.447	-6.124	44.743	1.00	26.80
23755	O	GLY	D	701	-78.981	-6.948	45.535	1.00	26.86
23756	N	VAL	D	702	-80.727	-6.127	44.413	1.00	26.80

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FIGURE 3 SZ

A	B	C	D	E	F	G	H	I	J
23757	CA	VAL	D	702	-81.542	-7.235	44.879	1.00	27.14
23758	CB	VAL	D	702	-82.865	-6.825	45.543	1.00	27.17
23759	CG1	VAL	D	702	-82.988	-5.322	45.630	1.00	27.53
23760	CG2	VAL	D	702	-84.064	-7.518	44.885	1.00	27.60
23761	C	VAL	D	702	-81.731	-8.279	43.806	1.00	26.77
23762	O	VAL	D	702	-82.007	-7.965	42.649	1.00	27.38
23763	N	ASP	D	703	-81.519	-9.522	44.204	1.00	26.53
23764	CA	ASP	D	703	-81.709	-10.650	43.329	1.00	27.21
23765	CB	ASP	D	703	-80.837	-11.838	43.754	1.00	27.73
23766	CG	ASP	D	703	-80.774	-12.911	42.670	1.00	28.68
23767	OD1	ASP	D	703	-81.055	-14.081	42.993	1.00	30.69
23768	OD2	ASP	D	703	-80.499	-12.661	41.465	1.00	25.48
23769	C	ASP	D	703	-83.169	-11.052	43.358	1.00	26.90
23770	O	ASP	D	703	-83.814	-11.018	44.407	1.00	27.76
23771	N	PHE	D	704	-83.688	-11.420	42.199	1.00	26.19
23772	CA	PHE	D	704	-85.078	-11.811	42.067	1.00	25.30
23773	CB	PHE	D	704	-85.953	-10.575	41.857	1.00	25.19
23774	CG	PHE	D	704	-85.616	-9.791	40.615	1.00	24.20
23775	CD1	PHE	D	704	-86.372	-9.940	39.462	1.00	23.72
23776	CE1	PHE	D	704	-86.070	-9.213	38.310	1.00	24.12
23777	CZ	PHE	D	704	-85.002	-8.309	38.306	1.00	21.64
23778	CE2	PHE	D	704	-84.252	-8.150	39.435	1.00	22.32
23779	CD2	PHE	D	704	-84.556	-8.894	40.600	1.00	23.35
23780	C	PHE	D	704	-85.166	-12.718	40.866	1.00	25.50
23781	O	PHE	D	704	-84.166	-12.925	40.160	1.00	25.56
23782	N	GLN	D	705	-86.348	-13.278	40.634	1.00	25.49
23783	CA	GLN	D	705	-86.545	-14.123	39.478	1.00	25.80
23784	CB	GLN	D	705	-87.227	-15.434	39.868	1.00	26.41
23785	CG	GLN	D	705	-86.449	-16.305	40.838	1.00	31.23
23786	CD	GLN	D	705	-84.996	-16.436	40.468	1.00	37.91
23787	OE1	GLN	D	705	-84.110	-16.189	41.296	1.00	43.51
23788	NE2	GLN	D	705	-84.736	-16.806	39.234	1.00	39.39
23789	C	GLN	D	705	-87.417	-13.375	38.472	1.00	24.92
23790	O	GLN	D	705	-88.367	-12.701	38.858	1.00	24.88
23791	N	ALA	D	706	-87.095	-13.494	37.192	1.00	23.71
23792	CA	ALA	D	706	-87.899	-12.868	36.155	1.00	23.59
23793	CB	ALA	D	706	-87.135	-11.717	35.509	1.00	22.50
23794	C	ALA	D	706	-88.372	-13.858	35.067	1.00	23.75
23795	O	ALA	D	706	-87.830	-14.963	34.896	1.00	23.51
23796	N	MET	D	707	-89.393	-13.443	34.336	1.00	23.38
23797	CA	MET	D	707	-89.810	-14.180	33.164	1.00	23.04
23798	CB	MET	D	707	-90.678	-15.378	33.533	1.00	23.25
23799	CG	MET	D	707	-91.241	-16.082	32.322	1.00	24.57
23800	SD	MET	D	707	-89.962	-16.899	31.331	1.00	26.76
23801	CE	MET	D	707	-89.257	-18.031	32.519	1.00	22.19
23802	C	MET	D	707	-90.606	-13.275	32.259	1.00	22.67
23803	O	MET	D	707	-91.645	-12.765	32.654	1.00	22.28
23804	N	TRP	D	708	-90.100	-13.059	31.050	1.00	22.64
23805	CA	TRP	D	708	-90.846	-12.327	30.044	1.00	22.61
23806	CB	TRP	D	708	-89.895	-11.449	29.221	1.00	21.99
23807	CG	TRP	D	708	-89.120	-12.216	28.185	1.00	22.43



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**FIGURE 3 TA**

A	B	C	D	E	F	G	H	I	J
23808	CD1	TRP	D	708	-89.596	-12.706	26.987	1.00	24.21
23809	NE1	TRP	D	708	-88.599	-13.382	26.324	1.00	23.29
23810	CE2	TRP	D	708	-87.451	-13.313	27.072	1.00	23.65
23811	CD2	TRP	D	708	-87.746	-12.594	28.245	1.00	21.39
23812	CE3	TRP	D	708	-86.736	-12.429	29.190	1.00	21.74
23813	CZ3	TRP	D	708	-85.491	-12.934	28.929	1.00	22.63
23814	CH2	TRP	D	708	-85.228	-13.637	27.764	1.00	23.46
23815	CZ2	TRP	D	708	-86.190	-13.839	26.823	1.00	23.70
23816	C	TRP	D	708	-91.550	-13.377	29.151	1.00	22.38
23817	O	TRP	D	708	-91.024	-14.476	28.951	1.00	23.23
23818	N	TYR	D	709	-92.724	-13.051	28.643	1.00	21.87
23819	CA	TYR	D	709	-93.463	-13.930	27.722	1.00	22.29
23820	CB	TYR	D	709	-94.837	-14.327	28.265	1.00	21.63
23821	CG	TYR	D	709	-94.689	-15.448	29.240	1.00	23.13
23822	CD1	TYR	D	709	-94.370	-16.730	28.809	1.00	23.03
23823	CE1	TYR	D	709	-94.181	-17.766	29.719	1.00	24.34
23824	CZ	TYR	D	709	-94.292	-17.511	31.064	1.00	24.60
23825	OH	TYR	D	709	-94.110	-18.520	31.982	1.00	23.02
23826	CE2	TYR	D	709	-94.590	-16.241	31.502	1.00	24.89
23827	CD2	TYR	D	709	-94.774	-15.219	30.596	1.00	23.35
23828	C	TYR	D	709	-93.597	-13.210	26.406	1.00	22.46
23829	O	TYR	D	709	-94.368	-12.263	26.268	1.00	22.19
23830	N	THR	D	710	-92.755	-13.612	25.478	1.00	23.10
23831	CA	THR	D	710	-92.679	-12.985	24.181	1.00	24.34
23832	CB	THR	D	710	-91.715	-13.792	23.325	1.00	24.78
23833	OG1	THR	D	710	-90.418	-13.773	23.935	1.00	25.52
23834	CG2	THR	D	710	-91.523	-13.116	21.986	1.00	24.41
23835	C	THR	D	710	-94.007	-12.947	23.460	1.00	24.60
23836	O	THR	D	710	-94.601	-14.000	23.195	1.00	24.62
23837	N	ASP	D	711	-94.443	-11.733	23.132	1.00	25.02
23838	CA	ASP	D	711	-95.653	-11.486	22.346	1.00	25.41
23839	CB	ASP	D	711	-95.652	-12.268	21.029	1.00	25.30
23840	CG	ASP	D	711	-94.688	-11.684	20.013	1.00	27.89
23841	OD1	ASP	D	711	-94.501	-12.313	18.929	1.00	30.31
23842	OD2	ASP	D	711	-94.074	-10.600	20.202	1.00	27.02
23843	C	ASP	D	711	-96.957	-11.705	23.069	1.00	25.14
23844	O	ASP	D	711	-98.024	-11.540	22.468	1.00	24.79
23845	N	GLU	D	712	-96.893	-12.086	24.343	1.00	24.54
23846	CA	GLU	D	712	-98.129	-12.243	25.092	1.00	24.67
23847	CB	GLU	D	712	-97.945	-13.177	26.291	1.00	24.69
23848	CG	GLU	D	712	-97.697	-14.640	25.904	1.00	26.15
23849	CD	GLU	D	712	-98.864	-15.265	25.148	1.00	28.70
23850	OE1	GLU	D	712	-98.685	-15.605	23.955	1.00	32.99
23851	OE2	GLU	D	712	-99.954	-15.436	25.729	1.00	28.16
23852	C	GLU	D	712	-98.662	-10.871	25.525	1.00	24.90
23853	O	GLU	D	712	-97.894	-9.908	25.710	1.00	24.40
23854	N	ASP	D	713	-99.977	-10.766	25.677	1.00	25.38
23855	CA	ASP	D	713	-100.541	-9.490	26.086	1.00	26.35
23856	CB	ASP	D	713	-101.709	-9.066	25.204	1.00	26.45
23857	CG	ASP	D	713	-102.948	-9.944	25.385	1.00	28.52
23858	OD1	ASP	D	713	-103.943	-9.689	24.664	1.00	32.19

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**FIGURE 3 TB**

A	B	C	D	E	F	G	H	I	J
23859	OD2	ASP	D	713	-103.044	-10.866	26.221	1.00	27.60
23860	C	ASP	D	713	-100.891	-9.553	27.562	1.00	25.89
23861	O	ASP	D	713	-100.273	-10.324	28.296	1.00	26.04
23862	N	HIS	D	714	-101.868	-8.774	28.008	1.00	25.24
23863	CA	HIS	D	714	-102.177	-8.773	29.429	1.00	25.39
23864	CB	HIS	D	714	-103.164	-7.671	29.790	1.00	24.41
23865	CG	HIS	D	714	-103.016	-7.192	31.193	1.00	24.80
23866	ND1	HIS	D	714	-101.806	-6.777	31.708	1.00	24.09
23867	CE1	HIS	D	714	-101.964	-6.433	32.973	1.00	22.22
23868	NE2	HIS	D	714	-103.232	-6.603	33.296	1.00	23.96
23869	CD2	HIS	D	714	-103.911	-7.090	32.206	1.00	25.30
23870	C	HIS	D	714	-102.679	-10.104	29.948	1.00	25.99
23871	O	HIS	D	714	-102.518	-10.408	31.123	1.00	26.72
23872	N	GLY	D	715	-103.277	-10.911	29.076	1.00	26.76
23873	CA	GLY	D	715	-103.860	-12.168	29.492	1.00	27.06
23874	C	GLY	D	715	-102.894	-13.334	29.578	1.00	28.15
23875	O	GLY	D	715	-103.189	-14.317	30.269	1.00	28.12
23876	N	ILE	D	716	-101.738	-13.226	28.916	1.00	28.62
23877	CA	ILE	D	716	-100.816	-14.350	28.828	1.00	29.13
23878	CB	ILE	D	716	-99.971	-14.457	30.096	1.00	29.10
23879	CG1	ILE	D	716	-99.493	-13.050	30.505	1.00	28.03
23880	CD1	ILE	D	716	-98.224	-13.034	31.308	1.00	26.15
23881	CG2	ILE	D	716	-98.794	-15.432	29.879	1.00	26.30
23882	C	ILE	D	716	-101.699	-15.567	28.663	1.00	30.53
23883	O	ILE	D	716	-101.572	-16.553	29.377	1.00	30.93
23884	N	ALA	D	717	-102.581	-15.488	27.676	1.00	31.90
23885	CA	ALA	D	717	-103.652	-16.452	27.527	1.00	32.82
23886	CB	ALA	D	717	-104.971	-15.701	27.359	1.00	32.77
23887	C	ALA	D	717	-103.468	-17.466	26.411	1.00	33.53
23888	O	ALA	D	717	-104.297	-18.345	26.225	1.00	34.26
23889	N	SER	D	718	-102.414	-17.337	25.631	1.00	34.51
23890	CA	SER	D	718	-102.149	-18.369	24.648	1.00	34.89
23891	CB	SER	D	718	-100.813	-18.117	23.966	1.00	35.09
23892	OG	SER	D	718	-100.861	-16.872	23.278	1.00	38.42
23893	C	SER	D	718	-102.138	-19.699	25.406	1.00	34.66
23894	O	SER	D	718	-101.737	-19.773	26.560	1.00	34.70
23895	N	SER	D	719	-102.597	-20.754	24.763	1.00	34.36
23896	CA	SER	D	719	-102.646	-22.033	25.429	1.00	33.70
23897	CB	SER	D	719	-103.188	-23.106	24.485	1.00	33.97
23898	OG	SER	D	719	-103.222	-24.340	25.165	1.00	35.36
23899	C	SER	D	719	-101.266	-22.419	25.974	1.00	32.72
23900	O	SER	D	719	-101.151	-22.841	27.119	1.00	32.25
23901	N	THR	D	720	-100.218	-22.252	25.175	1.00	31.69
23902	CA	THR	D	720	-98.884	-22.618	25.653	1.00	31.34
23903	CB	THR	D	720	-97.878	-22.741	24.491	1.00	31.31
23904	OG1	THR	D	720	-97.765	-21.487	23.807	1.00	30.08
23905	CG2	THR	D	720	-98.408	-23.750	23.417	1.00	31.67
23906	C	THR	D	720	-98.321	-21.702	26.751	1.00	31.24
23907	O	THR	D	720	-97.699	-22.181	27.701	1.00	31.39
23908	N	ALA	D	721	-98.542	-20.397	26.632	1.00	30.79
23909	CA	ALA	D	721	-97.983	-19.459	27.599	1.00	30.63

**REPLACEMENT SHEET**  
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**FIGURE 3 TC**

A	B	C	D	E	F	G	H	I	J
23910	CB	ALA	D	721	-98.069	-18.010	27.084	1.00	30.07
23911	C	ALA	D	721	-98.715	-19.615	28.901	1.00	30.47
23912	O	ALA	D	721	-98.129	-19.542	29.969	1.00	30.41
23913	N	HIS	D	722	-100.011	-19.859	28.800	1.00	30.82
23914	CA	HIS	D	722	-100.831	-20.075	29.982	1.00	31.21
23915	CB	HIS	D	722	-102.294	-20.280	29.581	1.00	31.42
23916	CG	HIS	D	722	-103.150	-20.822	30.680	1.00	32.76
23917	ND1	HIS	D	722	-103.602	-20.045	31.721	1.00	34.01
23918	CE1	HIS	D	722	-104.335	-20.781	32.537	1.00	34.22
23919	NE2	HIS	D	722	-104.363	-22.014	32.070	1.00	35.08
23920	CD2	HIS	D	722	-103.629	-22.068	30.908	1.00	34.44
23921	C	HIS	D	722	-100.311	-21.270	30.771	1.00	31.02
23922	O	HIS	D	722	-100.170	-21.216	32.002	1.00	31.48
23923	N	GLN	D	723	-100.019	-22.360	30.077	1.00	30.29
23924	CA	GLN	D	723	-99.473	-23.517	30.769	1.00	29.72
23925	CB	GLN	D	723	-99.444	-24.737	29.836	1.00	29.79
23926	CG	GLN	D	723	-100.808	-25.099	29.260	1.00	31.78
23927	CD	GLN	D	723	-100.717	-26.195	28.215	1.00	34.32
23928	OE1	GLN	D	723	-100.201	-27.290	28.495	1.00	36.17
23929	NE2	GLN	D	723	-101.196	-25.906	27.010	1.00	31.59
23930	C	GLN	D	723	-98.063	-23.233	31.296	1.00	28.87
23931	O	GLN	D	723	-97.680	-23.717	32.361	1.00	28.62
23932	N	HIS	D	724	-97.283	-22.482	30.531	1.00	28.25
23933	CA	HIS	D	724	-95.901	-22.186	30.909	1.00	28.61
23934	CB	HIS	D	724	-95.137	-21.579	29.730	1.00	28.69
23935	CG	HIS	D	724	-93.650	-21.580	29.904	1.00	29.79
23936	ND1	HIS	D	724	-92.995	-20.699	30.738	1.00	29.17
23937	CE1	HIS	D	724	-91.693	-20.935	30.687	1.00	29.96
23938	NE2	HIS	D	724	-91.482	-21.936	29.850	1.00	29.22
23939	CD2	HIS	D	724	-92.688	-22.354	29.344	1.00	30.80
23940	C	HIS	D	724	-95.776	-21.298	32.152	1.00	28.58
23941	O	HIS	D	724	-94.914	-21.534	32.987	1.00	28.75
23942	N	ILE	D	725	-96.655	-20.304	32.293	1.00	28.58
23943	CA	ILE	D	725	-96.589	-19.408	33.439	1.00	28.30
23944	CB	ILE	D	725	-97.407	-18.092	33.204	1.00	28.22
23945	CG1	ILE	D	725	-97.166	-17.107	34.359	1.00	26.66
23946	CD1	ILE	D	725	-97.987	-15.800	34.259	1.00	23.69
23947	CG2	ILE	D	725	-98.897	-18.358	33.041	1.00	26.98
23948	C	ILE	D	725	-96.989	-20.095	34.739	1.00	28.65
23949	O	ILE	D	725	-96.267	-20.017	35.746	1.00	28.07
23950	N	TYR	D	726	-98.124	-20.798	34.723	1.00	28.74
23951	CA	TYR	D	726	-98.563	-21.472	35.933	1.00	28.23
23952	CB	TYR	D	726	-99.999	-21.975	35.803	1.00	28.51
23953	CG	TYR	D	726	-101.012	-20.863	35.981	1.00	28.99
23954	CD1	TYR	D	726	-101.532	-20.187	34.888	1.00	28.65
23955	CE1	TYR	D	726	-102.433	-19.151	35.048	1.00	27.20
23956	CZ	TYR	D	726	-102.819	-18.786	36.318	1.00	27.84
23957	OH	TYR	D	726	-103.729	-17.770	36.494	1.00	26.17
23958	CE2	TYR	D	726	-102.326	-19.456	37.420	1.00	27.71
23959	CD2	TYR	D	726	-101.417	-20.470	37.250	1.00	28.75
23960	C	TYR	D	726	-97.574	-22.560	36.336	1.00	28.21

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**FIGURE 3 TD**

A	B	C	D	E	F	G	H	I	J
23961	O	TYR	D	726	-97.392	-22.827	37.521	1.00	28.14
23962	N	THR	D	727	-96.908	-23.155	35.352	1.00	28.24
23963	CA	THR	D	727	-95.906	-24.182	35.612	1.00	28.34
23964	CB	THR	D	727	-95.452	-24.871	34.283	1.00	28.52
23965	OG1	THR	D	727	-96.575	-25.509	33.654	1.00	30.62
23966	CG2	THR	D	727	-94.527	-26.045	34.558	1.00	27.79
23967	C	THR	D	727	-94.723	-23.522	36.307	1.00	28.16
23968	O	THR	D	727	-94.266	-23.982	37.344	1.00	28.00
23969	N	HIS	D	728	-94.249	-22.417	35.746	1.00	28.34
23970	CA	HIS	D	728	-93.129	-21.693	36.342	1.00	27.90
23971	CB	HIS	D	728	-92.708	-20.536	35.456	1.00	27.93
23972	CG	HIS	D	728	-91.256	-20.190	35.569	1.00	28.71
23973	ND1	HIS	D	728	-90.807	-19.043	36.190	1.00	26.94
23974	CE1	HIS	D	728	-89.492	-18.995	36.118	1.00	26.25
23975	NE2	HIS	D	728	-89.069	-20.066	35.471	1.00	27.15
23976	CD2	HIS	D	728	-90.153	-20.826	35.114	1.00	27.68
23977	C	HIS	D	728	-93.513	-21.177	37.709	1.00	27.60
23978	O	HIS	D	728	-92.732	-21.260	38.642	1.00	27.81
23979	N	MET	D	729	-94.736	-20.680	37.854	1.00	27.20
23980	CA	MET	D	729	-95.142	-20.148	39.151	1.00	27.30
23981	CB	MET	D	729	-96.461	-19.383	39.044	1.00	27.41
23982	CG	MET	D	729	-96.356	-18.089	38.223	1.00	27.80
23983	SD	MET	D	729	-97.799	-17.045	38.474	1.00	31.32
23984	CE	MET	D	729	-98.988	-17.959	37.603	1.00	28.58
23985	C	MET	D	729	-95.234	-21.217	40.227	1.00	27.58
23986	O	MET	D	729	-94.988	-20.946	41.415	1.00	26.14
23987	N	SER	D	730	-95.599	-22.426	39.790	1.00	28.27
23988	CA	SER	D	730	-95.763	-23.574	40.675	1.00	29.26
23989	CB	SER	D	730	-96.461	-24.733	39.940	1.00	29.36
23990	OG	SER	D	730	-97.801	-24.388	39.604	1.00	30.37
23991	C	SER	D	730	-94.415	-24.006	41.220	1.00	29.27
23992	O	SER	D	730	-94.272	-24.254	42.412	1.00	29.22
23993	N	HIS	D	731	-93.429	-24.070	40.341	1.00	30.11
23994	CA	HIS	D	731	-92.050	-24.371	40.740	1.00	31.48
23995	CB	HIS	D	731	-91.110	-24.302	39.527	1.00	31.75
23996	CG	HIS	D	731	-91.168	-25.502	38.635	1.00	36.02
23997	ND1	HIS	D	731	-91.333	-26.785	39.120	1.00	40.04
23998	CE1	HIS	D	731	-91.335	-27.636	38.108	1.00	41.67
23999	NE2	HIS	D	731	-91.175	-26.955	36.986	1.00	39.65
24000	CD2	HIS	D	731	-91.063	-25.619	37.288	1.00	38.27
24001	C	HIS	D	731	-91.555	-23.364	41.769	1.00	31.01
24002	O	HIS	D	731	-90.973	-23.743	42.788	1.00	31.43
24003	N	PHE	D	732	-91.796	-22.077	41.498	1.00	30.94
24004	CA	PHE	D	732	-91.300	-20.990	42.351	1.00	30.28
24005	CB	PHE	D	732	-91.692	-19.624	41.791	1.00	29.78
24006	CG	PHE	D	732	-91.248	-18.468	42.645	1.00	27.75
24007	CD1	PHE	D	732	-89.946	-17.998	42.572	1.00	27.19
24008	CE1	PHE	D	732	-89.533	-16.942	43.358	1.00	28.30
24009	CZ	PHE	D	732	-90.446	-16.323	44.213	1.00	28.28
24010	CE2	PHE	D	732	-91.744	-16.781	44.279	1.00	25.45
24011	CD2	PHE	D	732	-92.131	-17.853	43.509	1.00	25.81

**REPLACEMENT SHEET**  
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**FIGURE 3 TE**

A	B	C	D	E	F	G	H	I	J
24012	C	PHE	D	732	-91.851	-21.104	43.732	1.00	30.64
24013	O	PHE	D	732	-91.116	-20.985	44.717	1.00	30.47
24014	N	ILE	D	733	-93.158	-21.329	43.786	1.00	31.23
24015	CA	ILE	D	733	-93.880	-21.476	45.034	1.00	32.24
24016	CB	ILE	D	733	-95.393	-21.564	44.756	1.00	32.28
24017	CG1	ILE	D	733	-95.881	-20.241	44.184	1.00	33.24
24018	CD1	ILE	D	733	-95.741	-19.063	45.155	1.00	34.28
24019	CG2	ILE	D	733	-96.178	-21.875	46.030	1.00	31.60
24020	C	ILE	D	733	-93.393	-22.700	45.795	1.00	33.05
24021	O	ILE	D	733	-93.043	-22.584	46.960	1.00	33.10
24022	N	LYS	D	734	-93.366	-23.859	45.127	1.00	34.12
24023	CA	LYS	D	734	-92.894	-25.111	45.732	1.00	35.44
24024	CB	LYS	D	734	-92.634	-26.209	44.671	1.00	35.53
24025	CG	LYS	D	734	-93.742	-26.483	43.666	1.00	37.56
24026	CD	LYS	D	734	-94.685	-27.595	44.080	1.00	40.97
24027	CE	LYS	D	734	-94.023	-28.977	43.982	1.00	41.85
24028	NZ	LYS	D	734	-95.014	-30.045	43.641	1.00	42.68
24029	C	LYS	D	734	-91.569	-24.850	46.411	1.00	35.69
24030	O	LYS	D	734	-91.380	-25.172	47.579	1.00	35.50
24031	N	GLN	D	735	-90.649	-24.283	45.636	1.00	36.31
24032	CA	GLN	D	735	-89.291	-23.998	46.081	1.00	37.37
24033	CB	GLN	D	735	-88.466	-23.428	44.915	1.00	38.00
24034	CG	GLN	D	735	-87.112	-24.133	44.683	1.00	42.23
24035	CD	GLN	D	735	-86.882	-24.498	43.214	1.00	46.36
24036	OE1	GLN	D	735	-87.676	-24.120	42.353	1.00	49.07
24037	NE2	GLN	D	735	-85.804	-25.243	42.930	1.00	48.29
24038	C	GLN	D	735	-89.287	-23.048	47.280	1.00	37.22
24039	O	GLN	D	735	-88.546	-23.262	48.235	1.00	37.42
24040	N	CYS	D	736	-90.138	-22.027	47.249	1.00	36.65
24041	CA	CYS	D	736	-90.209	-21.069	48.348	1.00	36.80
24042	CB	CYS	D	736	-91.071	-19.857	47.957	1.00	36.66
24043	SG	CYS	D	736	-91.706	-18.832	49.313	1.00	38.36
24044	C	CYS	D	736	-90.746	-21.720	49.617	1.00	36.81
24045	O	CYS	D	736	-90.331	-21.367	50.731	1.00	36.68
24046	N	PHE	D	737	-91.663	-22.669	49.436	1.00	36.64
24047	CA	PHE	D	737	-92.305	-23.362	50.541	1.00	36.62
24048	CB	PHE	D	737	-93.752	-23.694	50.182	1.00	35.97
24049	CG	PHE	D	737	-94.676	-22.524	50.260	1.00	34.35
24050	CD1	PHE	D	737	-94.253	-21.335	50.826	1.00	30.83
24051	CE1	PHE	D	737	-95.095	-20.256	50.904	1.00	28.86
24052	CZ	PHE	D	737	-96.377	-20.344	50.422	1.00	29.88
24053	CE2	PHE	D	737	-96.820	-21.523	49.838	1.00	30.99
24054	CD2	PHE	D	737	-95.968	-22.604	49.754	1.00	31.96
24055	C	PHE	D	737	-91.582	-24.653	50.887	1.00	37.46
24056	O	PHE	D	737	-91.996	-25.381	51.782	1.00	37.47
24057	N	SER	D	738	-90.513	-24.949	50.165	1.00	38.74
24058	CA	SER	D	738	-89.768	-26.170	50.419	1.00	40.18
24059	CB	SER	D	738	-89.240	-26.211	51.858	1.00	39.94
24060	OG	SER	D	738	-88.089	-25.409	51.986	1.00	39.67
24061	C	SER	D	738	-90.633	-27.390	50.153	1.00	41.31
24062	O	SER	D	738	-90.620	-28.342	50.937	1.00	41.36

**REPLACEMENT SHEET**  
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**FIGURE 3 TF**

A	B	C	D	E	F	G	H	I	J
24063	N	LEU	D	739	-91.380	-27.352	49.051	1.00	42.72
24064	CA	LEU	D	739	-92.192	-28.484	48.624	1.00	44.17
24065	CB	LEU	D	739	-93.565	-28.034	48.154	1.00	43.93
24066	CG	LEU	D	739	-94.462	-27.445	49.231	1.00	44.34
24067	CD1	LEU	D	739	-95.808	-27.149	48.641	1.00	44.64
24068	CD2	LEU	D	739	-94.583	-28.407	50.404	1.00	45.57
24069	C	LEU	D	739	-91.507	-29.224	47.495	1.00	45.39
24070	O	LEU	D	739	-91.217	-28.656	46.445	1.00	45.92
24071	N	PRO	D	740	-91.231	-30.498	47.716	1.00	46.58
24072	CA	PRO	D	740	-90.596	-31.337	46.698	1.00	47.17
24073	CB	PRO	D	740	-90.074	-32.527	47.508	1.00	47.54
24074	CG	PRO	D	740	-90.252	-32.109	48.972	1.00	48.06
24075	CD	PRO	D	740	-91.471	-31.223	48.974	1.00	46.94
24076	C	PRO	D	740	-91.607	-31.811	45.662	1.00	47.45
24077	O	PRO	D	740	-92.806	-31.592	45.868	1.00	47.85
24078	O7	NAG	D1621		-115.658	-10.108	1.065	1.00	73.42
24079	C7	NAG	D1621		-115.594	-9.096	0.380	1.00	72.75
24080	C8	NAG	D1621		-116.631	-8.018	0.445	1.00	73.32
24081	N2	NAG	D1621		-114.567	-8.812	-0.414	1.00	71.98
24082	C2	NAG	D1621		-113.456	-9.726	-0.607	1.00	71.93
24083	C1	NAG	D1621		-112.792	-10.113	0.713	1.00	70.01
24084	C3	NAG	D1621		-113.935	-10.979	-1.334	1.00	72.45
24085	O3	NAG	D1621		-114.520	-10.646	-2.610	1.00	71.12
24086	C4	NAG	D1621		-112.786	-11.977	-1.491	1.00	72.47
24087	O4	NAG	D1621		-113.351	-13.258	-1.775	1.00	72.94
24088	C5	NAG	D1621		-111.914	-12.131	-0.238	1.00	72.76
24089	O5	NAG	D1621		-111.628	-10.885	0.412	1.00	72.16
24090	C6	NAG	D1621		-110.598	-12.825	-0.601	1.00	73.05
24091	O6	NAG	D1621		-109.961	-13.377	0.560	1.00	72.80
24092	O7	NAG	D2311		-143.486	2.005	13.260	1.00	74.38
24093	C7	NAG	D2311		-142.386	1.558	12.963	1.00	73.58
24094	C8	NAG	D2311		-142.247	0.199	12.336	1.00	73.63
24095	N2	NAG	D2311		-141.263	2.274	13.096	1.00	71.98
24096	C2	NAG	D2311		-141.288	3.609	13.680	1.00	70.62
24097	C1	NAG	D2311		-140.106	3.832	14.614	1.00	67.00
24098	C3	NAG	D2311		-141.303	4.679	12.596	1.00	70.50
24099	O3	NAG	D2311		-142.506	4.535	11.840	1.00	71.38
24100	C4	NAG	D2311		-141.254	6.070	13.217	1.00	70.31
24101	O4	NAG	D2311		-141.099	7.052	12.181	1.00	70.47
24102	C5	NAG	D2311		-140.104	6.171	14.219	1.00	69.91
24103	O5	NAG	D2311		-140.196	5.133	15.192	1.00	69.16
24104	C6	NAG	D2311		-140.111	7.517	14.934	1.00	70.22
24105	O6	NAG	D2311		-141.207	7.570	15.854	1.00	70.09
24106	O7	NAG	D2411		-112.694	16.675	14.251	1.00	58.29
24107	C7	NAG	D2411		-111.936	16.037	13.545	1.00	58.41
24108	C8	NAG	D2411		-112.422	15.169	12.422	1.00	57.84
24109	N2	NAG	D2411		-110.619	16.110	13.681	1.00	58.33
24110	C2	NAG	D2411		-110.033	16.919	14.722	1.00	58.50
24111	C1	NAG	D2411		-109.372	16.035	15.770	1.00	55.27
24112	C3	NAG	D2411		-109.003	17.855	14.113	1.00	60.36
24113	O3	NAG	D2411		-109.616	18.724	13.147	1.00	61.58

**REPLACEMENT SHEET**  
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**FIGURE 3 TG**

A	B	C	D	E	F	G	H	I	J
24114	C4	NAG	D2411		-108.359	18.664	15.225	1.00	61.57
24115	O4	NAG	D2411		-107.303	19.448	14.664	1.00	67.27
24116	C5	NAG	D2411		-107.807	17.736	16.309	1.00	60.81
24117	O5	NAG	D2411		-108.833	16.866	16.793	1.00	58.82
24118	C6	NAG	D2411		-107.256	18.518	17.490	1.00	60.30
24119	O6	NAG	D2411		-106.648	17.593	18.392	1.00	61.16
24120	O7	NAG	D2412		-102.963	19.045	15.946	1.00	79.63
24121	C7	NAG	D2412		-103.800	19.396	15.139	1.00	78.83
24122	C8	NAG	D2412		-103.934	18.788	13.771	1.00	79.00
24123	N2	NAG	D2412		-104.689	20.321	15.489	1.00	78.34
24124	C2	NAG	D2412		-105.721	20.814	14.606	1.00	78.56
24125	C1	NAG	D2412		-107.094	20.684	15.246	1.00	76.22
24126	C3	NAG	D2412		-105.386	22.271	14.309	1.00	79.46
24127	O3	NAG	D2412		-104.278	22.311	13.399	1.00	80.11
24128	C4	NAG	D2412		-106.553	23.048	13.709	1.00	79.88
24129	O4	NAG	D2412		-106.301	24.453	13.835	1.00	80.18
24130	C5	NAG	D2412		-107.870	22.718	14.397	1.00	79.65
24131	O5	NAG	D2412		-108.051	21.305	14.391	1.00	78.94
24132	C6	NAG	D2412		-109.038	23.397	13.689	1.00	79.99
24133	O6	NAG	D2412		-109.050	23.024	12.305	1.00	80.18
24134	O7	NAG	D2931		-121.810	14.605	-2.718	1.00	80.29
24135	C7	NAG	D2931		-121.748	13.389	-2.736	1.00	80.24
24136	C8	NAG	D2931		-122.652	12.560	-3.606	1.00	80.94
24137	N2	NAG	D2931		-120.825	12.713	-2.050	1.00	78.56
24138	C2	NAG	D2931		-119.878	13.395	-1.190	1.00	77.00
24139	C1	NAG	D2931		-119.943	12.829	0.230	1.00	74.54
24140	C3	NAG	D2931		-118.494	13.252	-1.814	1.00	77.06
24141	O3	NAG	D2931		-118.432	14.006	-3.035	1.00	77.42
24142	C4	NAG	D2931		-117.406	13.711	-0.852	1.00	76.73
24143	O4	NAG	D2931		-116.121	13.393	-1.397	1.00	76.18
24144	C5	NAG	D2931		-117.569	13.022	0.496	1.00	76.47
24145	O5	NAG	D2931		-118.861	13.321	1.025	1.00	76.20
24146	C6	NAG	D2931		-116.517	13.547	1.462	1.00	76.51
24147	O6	NAG	D2931		-116.850	14.893	1.819	1.00	76.40
24148	O7	NAG	D3331		-116.219	16.951	45.963	1.00	62.90
24149	C7	NAG	D3331		-116.733	17.154	44.869	1.00	62.34
24150	C8	NAG	D3331		-118.215	17.287	44.684	1.00	61.90
24151	N2	NAG	D3331		-115.991	17.361	43.789	1.00	61.79
24152	C2	NAG	D3331		-114.552	17.254	43.909	1.00	61.67
24153	C1	NAG	D3331		-113.957	16.496	42.730	1.00	57.43
24154	C3	NAG	D3331		-113.878	18.612	44.037	1.00	62.68
24155	O3	NAG	D3331		-114.391	19.283	45.188	1.00	63.18
24156	C4	NAG	D3331		-112.380	18.387	44.208	1.00	63.31
24157	O4	NAG	D3331		-111.696	19.642	44.179	1.00	64.30
24158	C5	NAG	D3331		-111.827	17.472	43.110	1.00	62.90
24159	O5	NAG	D3331		-112.580	16.260	43.023	1.00	62.27
24160	C6	NAG	D3331		-110.382	17.098	43.394	1.00	63.76
24161	O6	NAG	D3331		-110.097	15.863	42.731	1.00	65.10
24162	O	HOH	W	1	-70.047	-9.621	78.744	1.00	22.57
24163	O	HOH	W	2	-34.851	-4.814	99.378	1.00	19.43
24164	O	HOH	W	3	-62.319	-2.336	82.776	1.00	15.33

**REPLACEMENT SHEET**  
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**FIGURE 3 TH**

A	B	C	D	E	F	G	H	I	J
24165	O	HOH	W	4	-105.925	-3.902	37.241	1.00	21.48
24166	O	HOH	W	5	-52.287	-3.318	87.258	1.00	18.54
24167	O	HOH	W	6	-91.285	-16.061	25.538	1.00	22.18
24168	O	HOH	W	7	-33.478	6.291	87.322	1.00	21.61
24169	O	HOH	W	8	-32.644	-5.923	92.690	1.00	16.83
24170	O	HOH	W	9	-83.500	-4.860	34.516	1.00	20.17
24171	O	HOH	W	10	-95.846	-3.672	26.390	1.00	22.63
24172	O	HOH	W	11	-38.585	-8.808	81.793	1.00	32.00
24173	O	HOH	W	12	-131.539	3.310	49.749	1.00	24.07
24174	O	HOH	W	13	-89.602	-6.431	24.528	1.00	31.49
24175	O	HOH	W	14	-22.191	19.290	81.198	1.00	29.71
24176	O	HOH	W	15	-103.695	-7.177	26.708	1.00	23.52
24177	O	HOH	W	16	-48.011	-6.164	76.557	1.00	19.02
24178	O	HOH	W	17	-61.410	-18.972	74.744	1.00	17.60
24179	O	HOH	W	18	-87.151	-5.568	66.326	1.00	30.46
24180	O	HOH	W	19	-44.226	22.424	76.402	1.00	28.91
24181	O	HOH	W	20	-83.027	-8.609	67.599	1.00	25.69
24182	O	HOH	W	21	-105.924	-19.170	40.951	1.00	25.71
24183	O	HOH	W	22	-79.666	-0.305	31.865	1.00	24.81
24184	O	HOH	W	23	-70.178	-9.767	91.982	1.00	15.50
24185	O	HOH	W	24	-120.299	1.315	46.762	1.00	32.88
24186	O	HOH	W	25	-126.417	-15.760	32.836	1.00	35.97
24187	O	HOH	W	26	-107.622	-9.077	46.909	1.00	19.86
24188	O	HOH	W	27	-88.087	-4.550	25.498	1.00	19.45
24189	O	HOH	W	28	-82.329	4.434	33.892	1.00	20.74
24190	O	HOH	W	29	-71.620	-24.011	85.413	1.00	25.43
24191	O	HOH	W	30	-46.730	-8.233	84.956	1.00	25.87
24192	O	HOH	W	31	-98.497	-11.196	73.755	1.00	26.51
24193	O	HOH	W	32	-87.168	-5.170	18.974	1.00	26.01
24194	O	HOH	W	33	-62.091	-12.323	84.142	1.00	23.87
24195	O	HOH	W	34	-50.927	-6.839	93.390	1.00	26.48
24196	O	HOH	W	35	-70.656	-3.379	73.593	1.00	20.18
24197	O	HOH	W	36	-84.552	-6.501	19.825	1.00	24.45
24198	O	HOH	W	37	-117.602	-11.619	43.383	1.00	29.61
24199	O	HOH	W	38	-109.448	-3.153	38.603	1.00	19.00
24200	O	HOH	W	39	-77.633	-16.012	77.912	1.00	18.39
24201	O	HOH	W	40	-37.628	-8.094	86.503	1.00	24.21
24202	O	HOH	W	41	-68.908	-6.239	89.490	1.00	30.06
24203	O	HOH	W	42	-93.574	-16.006	55.747	1.00	20.92
24204	O	HOH	W	43	-128.507	1.119	37.053	1.00	23.40
24205	O	HOH	W	44	-53.377	-22.267	85.437	1.00	24.95
24206	O	HOH	W	45	-27.348	7.987	74.856	1.00	33.09
24207	O	HOH	W	46	-33.504	8.245	79.353	1.00	22.40
24208	O	HOH	W	47	-63.275	-0.369	56.167	1.00	20.34
24209	O	HOH	W	48	-60.051	-20.691	77.439	1.00	29.91
24210	O	HOH	W	49	-103.083	-7.671	22.880	1.00	20.83
24211	O	HOH	W	50	-55.646	5.935	84.874	1.00	16.39
24212	O	HOH	W	51	-20.326	16.802	88.348	1.00	29.49
24213	O	HOH	W	52	-31.662	6.373	71.432	1.00	25.55
24214	O	HOH	W	53	-82.079	3.469	31.545	1.00	27.19
24215	O	HOH	W	54	-71.278	-25.643	91.236	1.00	30.95



**REPLACEMENT SHEET**  
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**FIGURE 3 TI**

A	B	C	D	E	F	G	H	I	J
24216	O	HOH	W	55	-113.642	1.100	40.912	1.00	20.06
24217	O	HOH	W	56	-106.400	-10.823	48.758	1.00	23.65
24218	O	HOH	W	57	-72.098	-27.755	94.347	1.00	21.93
24219	O	HOH	W	58	-81.485	-2.961	34.163	1.00	20.94
24220	O	HOH	W	59	-104.853	-11.330	41.012	1.00	22.49
24221	O	HOH	W	60	-50.143	-21.292	15.918	1.00	46.06
24222	O	HOH	W	61	-75.243	-14.549	84.035	1.00	22.74
24223	O	HOH	W	62	-42.523	-4.657	66.681	1.00	32.51
24224	O	HOH	W	63	-65.231	-15.648	33.609	1.00	31.65
24225	O	HOH	W	64	-108.948	-3.717	25.649	1.00	29.83
24226	O	HOH	W	65	-92.950	-6.028	69.562	1.00	30.87
24227	O	HOH	W	66	-86.814	5.040	47.700	1.00	39.21
24228	O	HOH	W	67	-116.041	-8.699	50.305	1.00	23.70
24229	O	HOH	W	68	-93.123	10.711	28.131	1.00	26.08
24230	O	HOH	W	69	-50.985	3.640	72.696	1.00	20.48
24231	O	HOH	W	70	-70.198	-10.686	80.787	1.00	27.69
24232	O	HOH	W	71	-114.830	-7.412	52.563	1.00	26.83
24233	O	HOH	W	72	-75.102	-0.276	9.886	1.00	28.92
24234	O	HOH	W	73	-23.734	-17.727	89.694	1.00	28.78
24235	O	HOH	W	74	-61.665	13.073	82.553	1.00	23.56
24236	O	HOH	W	75	-71.182	-9.402	3.784	1.00	35.36
24237	O	HOH	W	76	-24.540	-4.350	67.423	1.00	43.77
24238	O	HOH	W	77	-61.200	-3.647	93.365	1.00	19.38
24239	O	HOH	W	78	-121.220	15.557	20.341	1.00	39.85
24240	O	HOH	W	79	-72.505	5.898	75.027	1.00	28.20
24241	O	HOH	W	80	-53.615	-1.972	65.458	1.00	25.36
24242	O	HOH	W	81	-23.316	8.408	68.632	1.00	27.79
24243	O	HOH	W	82	-40.295	-8.810	86.500	1.00	19.14
24244	O	HOH	W	83	-66.594	-4.239	87.795	1.00	24.11
24245	O	HOH	W	84	-75.182	-13.009	69.585	1.00	18.25
24246	O	HOH	W	85	-96.392	-18.489	23.392	1.00	36.31
24247	O	HOH	W	86	-112.774	15.956	26.499	1.00	26.80
24248	O	HOH	W	87	-91.217	-10.713	67.871	1.00	16.07
24249	O	HOH	W	88	-12.985	-15.845	110.350	1.00	29.91
24250	O	HOH	W	89	-59.754	-17.919	67.217	1.00	33.41
24251	O	HOH	W	90	-87.120	-23.809	79.247	1.00	25.99
24252	O	HOH	W	91	-17.496	-5.037	62.417	1.00	35.92
24253	O	HOH	W	92	-82.662	-5.201	21.440	1.00	28.79
24254	O	HOH	W	93	-15.946	-17.219	90.181	1.00	35.57
24255	O	HOH	W	94	-106.041	-23.904	32.595	1.00	27.36
24256	O	HOH	W	95	-64.891	-38.163	13.838	1.00	49.31
24257	O	HOH	W	96	-68.673	-3.377	89.485	1.00	28.59
24258	O	HOH	W	97	-73.127	4.487	72.673	1.00	24.48
24259	O	HOH	W	98	-75.506	0.140	23.056	1.00	30.81
24260	O	HOH	W	99	-59.199	11.468	76.763	1.00	25.49
24261	O	HOH	W	100	-66.041	3.566	-5.385	1.00	33.28
24262	O	HOH	W	101	-11.881	3.367	91.642	1.00	21.04
24263	O	HOH	W	102	-85.203	-18.621	66.788	1.00	27.38
24264	O	HOH	W	103	-109.289	4.117	56.380	1.00	33.61
24265	O	HOH	W	104	-106.928	-5.336	50.716	1.00	28.54
24266	O	HOH	W	105	-81.989	-10.473	65.120	1.00	20.82

**REPLACEMENT SHEET**  
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**FIGURE 3 TJ**

A	B	C	D	E	F	G	H	I	J
24267	O	HOH	W	106	-41.840	13.381	94.446	1.00	35.97
24268	O	HOH	W	107	-106.501	-2.782	35.295	1.00	28.25
24269	O	HOH	W	108	-72.388	10.526	80.061	1.00	31.33
24270	O	HOH	W	109	-53.562	5.264	73.907	1.00	22.21
24271	O	HOH	W	110	-57.971	6.214	86.367	1.00	23.64
24272	O	HOH	W	111	-100.805	-7.622	22.042	1.00	23.65
24273	O	HOH	W	112	-48.478	-3.003	92.083	1.00	23.36
24274	O	HOH	W	113	-85.465	-25.300	72.872	1.00	29.44
24275	O	HOH	W	114	-20.282	8.882	79.786	1.00	35.92
24276	O	HOH	W	115	-45.959	2.886	103.777	1.00	26.29
24277	O	HOH	W	116	-36.141	-11.677	74.345	1.00	28.93
24278	O	HOH	W	117	-84.832	-6.458	67.180	1.00	23.67
24279	O	HOH	W	118	-110.885	-3.063	36.123	1.00	17.59
24280	O	HOH	W	119	-76.548	1.210	67.123	1.00	23.27
24281	O	HOH	W	120	-90.282	-6.048	52.777	1.00	21.84
24282	O	HOH	W	121	-29.693	4.046	86.322	1.00	34.98
24283	O	HOH	W	122	-28.902	-9.734	109.602	1.00	31.65
24284	O	HOH	W	123	-4.352	-3.743	90.634	1.00	32.59
24285	O	HOH	W	124	-91.781	-4.447	83.572	1.00	25.21
24286	O	HOH	W	125	-67.717	-16.914	28.754	1.00	40.36
24287	O	HOH	W	126	-119.211	0.651	53.546	1.00	26.42
24288	O	HOH	W	127	-91.301	-28.429	34.790	1.00	40.78
24289	O	HOH	W	128	-76.632	-4.861	41.174	1.00	30.89
24290	O	HOH	W	129	-99.483	0.770	31.171	1.00	21.46
24291	O	HOH	W	130	-40.577	25.458	71.322	1.00	31.89
24292	O	HOH	W	131	-54.460	-3.811	88.792	1.00	26.57
24293	O	HOH	W	132	-73.347	-26.780	96.594	1.00	25.31
24294	O	HOH	W	133	-101.846	-12.191	22.857	1.00	29.80
24295	O	HOH	W	134	-13.225	-4.460	115.839	1.00	40.97
24296	O	HOH	W	135	-68.912	-5.769	86.997	1.00	22.23
24297	O	HOH	W	136	-22.275	9.258	67.096	1.00	30.00
24298	O	HOH	W	137	-44.839	-3.193	88.802	1.00	24.93
24299	O	HOH	W	138	-65.755	-7.053	37.884	1.00	28.79
24300	O	HOH	W	139	-58.404	-6.772	87.209	1.00	23.49
24301	O	HOH	W	140	-80.628	-9.548	77.028	1.00	24.08
24302	O	HOH	W	141	-99.414	17.192	45.081	1.00	30.93
24303	O	HOH	W	142	-25.663	9.914	92.244	1.00	34.26
24304	O	HOH	W	143	-36.543	-4.504	86.323	1.00	26.15
24305	O	HOH	W	144	-50.670	-5.118	86.081	1.00	28.13
24306	O	HOH	W	145	-14.817	1.884	76.189	1.00	31.05
24307	O	HOH	W	146	-90.085	4.557	31.021	1.00	23.04
24308	O	HOH	W	147	-92.788	-23.311	32.998	1.00	35.23
24309	O	HOH	W	148	-73.899	-11.308	78.406	1.00	20.27
24310	O	HOH	W	149	-44.776	-13.606	80.500	1.00	26.73
24311	O	HOH	W	150	-82.733	-15.307	90.077	1.00	52.62
24312	O	HOH	W	151	-27.565	-1.561	63.745	1.00	37.01
24313	O	HOH	W	152	-59.931	-24.626	91.317	1.00	27.37
24314	O	HOH	W	153	-48.630	-13.831	69.969	1.00	25.35
24315	O	HOH	W	154	-56.434	-22.590	87.803	1.00	28.54
24316	O	HOH	W	155	-97.391	5.405	41.148	1.00	28.63
24317	O	HOH	W	156	-111.072	13.637	28.834	1.00	29.36

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 TK**

A	B	C	D	E	F	G	H	I	J
24318	O	HOH	W	157	-70.170	-26.212	93.986	1.00	21.97
24319	O	HOH	W	158	-40.421	-9.872	83.798	1.00	25.90
24320	O	HOH	W	159	-124.981	-6.802	54.015	1.00	32.00
24321	O	HOH	W	160	-14.089	3.959	80.977	1.00	28.94
24322	O	HOH	W	161	-75.785	-11.368	76.575	1.00	16.09
24323	O	HOH	W	162	-85.426	-18.016	6.302	1.00	35.99
24324	O	HOH	W	163	-79.395	2.382	31.405	1.00	35.95
24325	O	HOH	W	164	-80.145	2.786	36.094	1.00	28.98
24326	O	HOH	W	165	-54.849	-0.234	3.626	1.00	52.60
24327	O	HOH	W	166	-106.634	-5.311	26.057	1.00	27.44
24328	O	HOH	W	167	-62.637	0.167	91.371	1.00	24.04
24329	O	HOH	W	168	-72.863	22.007	67.554	1.00	38.64
24330	O	HOH	W	169	-114.985	13.055	45.357	1.00	40.11
24331	O	HOH	W	170	-71.027	-10.565	83.882	1.00	39.02
24332	O	HOH	W	171	-71.902	-4.399	21.029	1.00	31.18
24333	O	HOH	W	172	-48.422	1.924	102.299	1.00	32.51
24334	O	HOH	W	173	-48.339	-3.859	75.038	1.00	24.54
24335	O	HOH	W	174	-107.907	-2.609	32.422	1.00	22.99
24336	O	HOH	W	175	-104.620	-18.098	43.567	1.00	35.88
24337	O	HOH	W	176	-90.642	0.177	20.961	1.00	22.61
24338	O	HOH	W	177	-110.363	10.007	42.496	1.00	33.78
24339	O	HOH	W	178	-85.410	-18.015	73.273	1.00	17.91
24340	O	HOH	W	179	-57.482	7.441	93.816	1.00	23.43
24341	O	HOH	W	180	-35.275	-15.110	99.309	1.00	32.53
24342	O	HOH	W	181	-12.734	-3.318	78.965	1.00	34.77
24343	O	HOH	W	182	-118.291	5.612	43.221	1.00	24.78
24344	O	HOH	W	183	-58.998	-24.547	94.104	1.00	39.07
24345	O	HOH	W	184	-68.221	4.700	81.326	1.00	21.62
24346	O	HOH	W	185	-55.744	-25.024	77.689	1.00	38.78
24347	O	HOH	W	186	-51.734	-8.919	92.077	1.00	24.62
24348	O	HOH	W	187	-59.944	8.112	87.649	1.00	32.98
24349	O	HOH	W	188	-76.414	-19.148	58.805	1.00	46.32
24350	O	HOH	W	189	-50.989	14.314	75.971	1.00	34.01
24351	O	HOH	W	190	1.782	15.783	87.688	1.00	56.92
24352	O	HOH	W	191	-74.202	-3.438	22.570	1.00	29.82
24353	O	HOH	W	192	-32.236	1.525	89.838	1.00	25.96
24354	O	HOH	W	193	-75.647	0.161	28.354	1.00	29.82
24355	O	HOH	W	194	-92.262	-14.808	91.578	1.00	30.64
24356	O	HOH	W	195	-83.298	-11.345	4.255	1.00	38.28
24357	O	HOH	W	196	-37.338	3.161	59.048	1.00	20.67
24358	O	HOH	W	197	-59.182	-7.885	99.202	1.00	36.33
24359	O	HOH	W	198	-30.676	15.551	78.119	1.00	28.90
24360	O	HOH	W	199	-77.000	-8.976	77.246	1.00	30.29
24361	O	HOH	W	200	-62.592	-2.234	91.528	1.00	22.49
24362	O	HOH	W	201	-84.788	-15.542	74.412	1.00	22.56
24363	O	HOH	W	202	-75.385	-10.834	68.001	1.00	24.89
24364	O	HOH	W	203	-77.662	-8.241	26.170	1.00	21.16
24365	O	HOH	W	204	-64.771	1.570	90.052	1.00	33.62
24366	O	HOH	W	205	-81.699	-10.155	47.063	1.00	36.98
24367	O	HOH	W	206	-20.231	-36.910	75.605	1.00	36.29
24368	O	HOH	W	207	-25.961	-27.837	99.022	1.00	38.88

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 TL**

A	B	C	D	E	F	G	H	I	J
24369	O	HOH	W	208	-96.006	-14.048	18.095	1.00	28.04
24370	O	HOH	W	209	-58.469	5.269	93.487	1.00	23.13
24371	O	HOH	W	210	-74.325	-6.822	68.883	1.00	20.73
24372	O	HOH	W	211	-89.567	-12.790	68.569	1.00	25.44
24373	O	HOH	W	212	-37.674	0.666	58.639	1.00	25.90
24374	O	HOH	W	213	-68.643	-16.312	26.182	1.00	34.79
24375	O	HOH	W	214	-30.927	5.755	102.928	1.00	32.95
24376	O	HOH	W	215	-79.481	-1.250	35.367	1.00	26.75
24377	O	HOH	W	216	-92.377	-0.377	25.088	1.00	25.39
24378	O	HOH	W	217	-83.520	-15.613	70.403	1.00	24.33
24379	O	HOH	W	218	-72.696	-23.309	102.427	1.00	27.73
24380	O	HOH	W	219	-77.396	-4.105	-0.654	1.00	32.28
24381	O	HOH	W	220	-117.083	-11.246	50.304	1.00	31.59
24382	O	HOH	W	221	-97.187	-16.296	65.596	1.00	36.87
24383	O	HOH	W	222	-85.942	-11.587	45.311	1.00	26.63
24384	O	HOH	W	223	-41.219	-10.073	88.257	1.00	19.26
24385	O	HOH	W	224	-77.785	-29.179	76.237	1.00	27.76
24386	O	HOH	W	225	-55.141	-17.302	92.534	1.00	36.22
24387	O	HOH	W	226	-89.051	-3.976	58.563	1.00	31.85
24388	O	HOH	W	227	-133.159	5.245	4.407	1.00	35.71
24389	O	HOH	W	228	-64.438	-15.995	30.706	1.00	31.36
24390	O	HOH	W	229	-95.735	-25.318	29.954	1.00	34.97
24391	O	HOH	W	230	-73.488	-8.008	80.339	1.00	34.43
24392	O	HOH	W	231	-111.130	-3.552	40.809	1.00	23.31
24393	O	HOH	W	232	-110.233	-1.951	33.979	1.00	21.17
24394	O	HOH	W	233	-114.918	6.101	34.185	1.00	22.47
24395	O	HOH	W	234	-122.726	-5.394	51.238	1.00	26.82
24396	O	HOH	W	235	-122.574	-1.404	39.114	1.00	40.17
24397	O	HOH	W	236	-73.267	-25.867	81.292	1.00	29.46
24398	O	HOH	W	237	-84.409	-1.101	26.394	1.00	29.29
24399	O	HOH	W	238	-91.341	-16.988	84.578	1.00	25.96
24400	O	HOH	W	239	-39.470	-12.050	73.075	1.00	37.03
24401	O	HOH	W	240	-2.061	-8.117	106.954	1.00	34.50
24402	O	HOH	W	241	-59.827	-16.337	6.625	1.00	34.16
24403	O	HOH	W	242	-87.331	4.980	43.006	1.00	39.82
24404	O	HOH	W	243	-96.863	-28.277	33.742	1.00	44.85
24405	O	HOH	W	244	-104.593	-13.702	41.488	1.00	19.51
24406	O	HOH	W	245	-73.417	-11.509	83.254	1.00	26.05
24407	O	HOH	W	246	-75.722	2.349	69.359	1.00	29.25
24408	O	HOH	W	247	-24.578	1.538	70.024	1.00	39.78
24409	O	HOH	W	248	-46.998	-3.845	101.005	1.00	32.06
24410	O	HOH	W	249	-92.617	-13.851	9.018	1.00	42.28
24411	O	HOH	W	250	-61.764	-8.020	59.987	1.00	26.98
24412	O	HOH	W	251	-100.091	14.397	26.529	1.00	33.05
24413	O	HOH	W	252	-42.633	-6.822	68.502	1.00	24.40
24414	O	HOH	W	253	-7.181	8.932	64.612	1.00	53.64
24415	O	HOH	W	254	-27.720	14.073	82.527	1.00	30.70
24416	O	HOH	W	255	-24.177	14.802	60.014	1.00	34.48
24417	O	HOH	W	256	-119.569	-12.532	51.495	1.00	34.93
24418	O	HOH	W	257	-79.324	-19.664	11.988	1.00	34.52
24419	O	HOH	W	258	-23.137	8.077	85.725	1.00	30.90

**REPLACEMENT SHEET**  
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**FIGURE 3 TM**

A	B	C	D	E	F	G	H	I	J
24420	O	HOH	W	259	-112.359	-5.953	39.910	1.00	23.57
24421	O	HOH	W	260	-87.105	-12.094	63.902	1.00	34.92
24422	O	HOH	W	261	-62.976	1.555	93.915	1.00	36.04
24423	O	HOH	W	262	-53.812	-0.539	59.667	1.00	37.46
24424	O	HOH	W	263	-34.031	-2.761	87.089	1.00	29.06
24425	O	HOH	W	264	-6.705	-3.338	96.833	1.00	39.74
24426	O	HOH	W	265	-74.896	5.360	95.271	1.00	56.40
24427	O	HOH	W	266	-59.460	-24.880	84.398	1.00	40.62
24428	O	HOH	W	267	-76.631	-8.476	69.740	1.00	26.98
24429	O	HOH	W	268	-89.995	-1.453	18.972	1.00	30.42
24430	O	HOH	W	269	-32.602	-12.208	2.518	1.00	61.33
24431	O	HOH	W	270	-77.030	-19.598	85.298	1.00	19.19
24432	O	HOH	W	271	-41.014	-1.534	63.232	1.00	27.69
24433	O	HOH	W	272	-10.257	-6.964	64.268	1.00	45.43
24434	O	HOH	W	273	-100.633	14.121	46.413	1.00	22.88
24435	O	HOH	W	274	-90.144	6.000	42.386	1.00	26.82
24436	O	HOH	W	275	-43.139	-10.647	75.949	1.00	41.26
24437	O	HOH	W	276	-79.138	-27.021	101.715	1.00	38.78
24438	O	HOH	W	277	-90.782	-17.156	28.326	1.00	24.37
24439	O	HOH	W	278	-119.652	-0.976	45.322	1.00	29.90
24440	O	HOH	W	279	-56.269	-8.617	86.422	1.00	24.42
24441	O	HOH	W	280	-121.228	-17.863	25.690	1.00	42.06
24442	O	HOH	W	281	-83.963	-10.204	47.551	1.00	29.91
24443	O	HOH	W	282	-106.283	-7.787	25.072	1.00	19.72
24444	O	HOH	W	283	-26.442	5.106	111.640	1.00	26.93
24445	O	HOH	W	284	-30.160	-24.628	79.920	1.00	31.03
24446	O	HOH	W	285	-53.610	11.401	97.883	1.00	33.98
24447	O	HOH	W	286	-83.509	1.590	42.769	1.00	26.82
24448	O	HOH	W	287	-87.278	-6.046	78.528	1.00	52.68
24449	O	HOH	W	288	-72.847	5.572	-1.336	1.00	40.58
24450	O	HOH	W	289	-111.385	-17.904	9.313	1.00	42.55
24451	O	HOH	W	290	-41.612	-8.792	66.548	1.00	33.68
24452	O	HOH	W	291	-56.140	16.815	76.688	1.00	32.39
24453	O	HOH	W	292	-111.586	-16.824	12.088	1.00	37.33
24454	O	HOH	W	293	-63.913	-12.750	109.046	1.00	39.21
24455	O	HOH	W	294	-52.563	-15.484	82.996	1.00	24.79
24456	O	HOH	W	295	-74.928	-10.977	81.127	1.00	25.93
24457	O	HOH	W	296	-71.856	-3.869	0.862	1.00	39.40
24458	O	HOH	W	297	-92.388	7.474	22.287	1.00	36.88
24459	O	HOH	W	298	-113.255	-22.248	37.416	1.00	32.99
24460	O	HOH	W	299	-56.624	-21.871	66.601	1.00	62.21
24461	O	HOH	W	300	-69.526	-9.432	19.901	1.00	42.19
24462	O	HOH	W	301	-85.865	7.711	63.285	1.00	42.58
24463	O	HOH	W	302	-91.267	-14.271	84.352	1.00	26.57
24464	O	HOH	W	303	-95.271	15.524	82.843	1.00	40.52
24465	O	HOH	W	304	-109.080	-5.733	48.972	1.00	21.15
24466	O	HOH	W	305	-19.924	-6.058	62.090	1.00	33.77
24467	O	HOH	W	306	-131.353	-12.524	54.607	1.00	39.97
24468	O	HOH	W	307	-82.761	-15.268	82.570	1.00	22.77
24469	O	HOH	W	308	-120.711	-19.867	51.546	1.00	29.54
24470	O	HOH	W	309	-100.641	-16.744	72.476	1.00	36.27

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 TN**

A	B	C	D	E	F	G	H	I	J
24471	O	HOH	W	310	-80.240	-17.209	39.758	1.00	33.90
24472	O	HOH	W	311	-31.708	-9.641	95.238	1.00	29.12
24473	O	HOH	W	312	-83.814	-16.154	5.680	1.00	53.05
24474	O	HOH	W	313	-37.232	-6.563	80.302	1.00	36.17
24475	O	HOH	W	314	-70.622	-1.977	88.167	1.00	27.88
24476	O	HOH	W	315	-84.119	-4.252	74.137	1.00	31.96
24477	O	HOH	W	316	-77.295	-10.541	81.836	1.00	32.42
24478	O	HOH	W	317	-101.238	-14.498	72.963	1.00	45.28
24479	O	HOH	W	318	-24.754	5.854	86.018	1.00	31.66
24480	O	HOH	W	319	-73.523	-10.444	44.877	1.00	29.80
24481	O	HOH	W	320	-59.557	13.895	78.345	1.00	26.20
24482	O	HOH	W	321	-109.292	-3.190	47.869	1.00	23.62
24483	O	HOH	W	322	-91.160	-8.045	54.116	1.00	23.32
24484	O	HOH	W	323	-25.913	8.917	82.854	1.00	29.76
24485	O	HOH	W	324	-45.682	-7.725	76.713	1.00	28.57
24486	O	HOH	W	325	-29.382	0.836	55.856	1.00	39.66
24487	O	HOH	W	326	-32.152	-26.155	78.159	1.00	37.39
24488	O	HOH	W	327	-114.146	5.928	52.894	1.00	33.72
24489	O	HOH	W	328	-78.027	-8.774	43.048	1.00	21.47
24490	O	HOH	W	329	-124.215	5.256	39.406	1.00	37.84
24491	O	HOH	W	330	-114.276	-0.923	34.147	1.00	29.79
24492	O	HOH	W	331	-86.349	-13.850	81.041	1.00	34.32
24493	O	HOH	W	332	-48.933	4.882	102.460	1.00	25.22
24494	O	HOH	W	333	-144.631	1.048	44.554	1.00	40.54
24495	O	HOH	W	334	-78.844	-2.914	102.492	1.00	34.39
24496	O	HOH	W	335	-82.073	-8.908	53.475	1.00	34.72
24497	O	HOH	W	336	-132.571	-12.045	51.216	1.00	43.39
24498	O	HOH	W	337	-113.484	15.595	18.318	1.00	43.50
24499	O	HOH	W	338	-80.286	5.452	15.760	1.00	42.84
24500	O	HOH	W	339	-94.063	4.582	23.976	1.00	23.62
24501	O	HOH	W	340	-123.795	9.308	48.657	1.00	34.25
24502	O	HOH	W	341	-8.269	-4.453	84.606	1.00	44.86
24503	O	HOH	W	342	-137.812	-28.700	21.377	1.00	49.37
24504	O	HOH	W	343	-70.782	-7.957	90.513	1.00	23.76
24505	O	HOH	W	344	-51.640	-3.177	62.800	1.00	28.14
24506	O	HOH	W	345	-107.294	19.998	28.517	1.00	34.16
24507	O	HOH	W	346	-75.391	-31.741	89.888	1.00	34.52
24508	O	HOH	W	347	-28.729	4.880	89.134	1.00	29.64
24509	O	HOH	W	348	-94.866	8.220	22.666	1.00	37.15
24510	O	HOH	W	349	-47.619	5.635	68.767	1.00	31.79
24511	O	HOH	W	350	-32.001	-5.017	90.310	1.00	28.26
24512	O	HOH	W	351	-117.983	-20.729	54.852	1.00	39.53
24513	O	HOH	W	352	-45.251	5.119	19.195	1.00	47.31
24514	O	HOH	W	353	-93.949	-1.603	27.037	1.00	28.43
24515	O	HOH	W	354	11.481	9.358	86.657	1.00	48.62
24516	O	HOH	W	355	-60.019	14.574	67.773	1.00	47.66
24517	O	HOH	W	356	-45.557	-15.018	78.497	1.00	25.05
24518	O	HOH	W	357	-76.943	-0.688	70.818	1.00	40.91
24519	O	HOH	W	358	-60.725	-1.346	55.724	1.00	44.13
24520	O	HOH	W	359	-90.931	-11.002	62.749	1.00	37.87
24521	O	HOH	W	360	-103.687	19.110	45.842	1.00	40.74

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 TO**

A	B	C	D	E	F	G	H	I	J
24522	O	HOH	W	361	-103.447	1.555	58.425	1.00	44.32
24523	O	HOH	W	362	-62.424	-33.596	14.361	1.00	42.09
24524	O	HOH	W	363	-142.610	6.528	48.843	1.00	35.58
24525	O	HOH	W	364	-50.711	-7.054	8.397	1.00	49.26
24526	O	HOH	W	365	-32.087	-3.255	68.786	1.00	29.39
24527	O	HOH	W	366	-78.082	0.405	23.933	1.00	31.59
24528	O	HOH	W	367	-30.102	14.289	80.546	1.00	28.45
24529	O	HOH	W	368	-84.631	-31.154	102.920	1.00	45.04
24530	O	HOH	W	369	-73.753	-25.119	77.110	1.00	23.89
24531	O	HOH	W	370	-30.399	14.616	102.905	1.00	46.03
24532	O	HOH	W	371	-46.946	22.032	80.247	1.00	28.87
24533	O	HOH	W	372	-86.341	13.219	86.877	1.00	47.17
24534	O	HOH	W	373	-19.006	-2.210	116.881	1.00	33.56
24535	O	HOH	W	374	-76.017	-7.389	42.389	1.00	31.21
24536	O	HOH	W	375	-66.602	-6.591	17.190	1.00	38.69
24537	O	HOH	W	376	-88.752	-13.509	66.146	1.00	32.00
24538	O	HOH	W	377	-55.062	-14.282	90.703	1.00	26.99
24539	O	HOH	W	378	-78.048	-9.519	45.392	1.00	24.96
24540	O	HOH	W	379	-46.272	-14.689	60.543	1.00	46.39
24541	O	HOH	W	380	-104.895	17.465	31.690	1.00	52.28
24542	O	HOH	W	381	-90.097	-5.431	81.500	1.00	29.16
24543	O	HOH	W	382	-35.670	-1.759	75.500	1.00	33.60
24544	O	HOH	W	383	-27.003	8.111	68.489	1.00	29.54
24545	O	HOH	W	384	-115.888	-9.266	25.040	1.00	38.52
24546	O	HOH	W	385	-27.613	-1.659	68.433	1.00	34.39
24547	O	HOH	W	386	-71.527	-25.637	101.416	1.00	36.97
24548	O	HOH	W	387	-140.064	9.912	23.260	1.00	42.90
24549	O	HOH	W	388	-40.301	-8.785	104.462	1.00	40.87
24550	O	HOH	W	389	-64.273	1.125	23.882	1.00	39.29
24551	O	HOH	W	390	-92.220	-5.490	23.328	1.00	25.87
24552	O	HOH	W	391	-34.229	1.672	112.166	1.00	32.95
24553	O	HOH	W	392	-4.121	-6.162	88.781	1.00	46.28
24554	O	HOH	W	393	-55.972	-24.423	84.033	1.00	48.43
24555	O	HOH	W	394	-56.995	8.367	70.948	1.00	29.49
24556	O	HOH	W	395	-126.333	-7.814	37.963	1.00	37.37
24557	O	HOH	W	396	-48.948	3.852	66.990	1.00	37.01
24558	O	HOH	W	397	-46.749	-1.825	90.667	1.00	27.00
24559	O	HOH	W	398	-106.804	0.856	6.978	1.00	47.53
24560	O	HOH	W	399	-66.287	-18.360	33.203	1.00	36.53
24561	O	HOH	W	400	-61.116	-8.337	36.977	1.00	45.12
24562	O	HOH	W	401	-96.847	-20.236	62.448	1.00	49.72
24563	O	HOH	W	402	-27.539	-32.416	74.701	1.00	45.14
24564	O	HOH	W	403	-27.859	8.977	87.605	1.00	23.08
24565	O	HOH	W	404	-113.552	-6.130	38.217	1.00	34.04
24566	O	HOH	W	405	-41.959	22.786	70.496	1.00	27.28
24567	O	HOH	W	406	-43.248	24.044	98.232	1.00	47.89
24568	O	HOH	W	407	-98.090	3.948	48.778	1.00	36.98
24569	O	HOH	W	408	-117.722	-1.339	49.192	1.00	33.13
24570	O	HOH	W	409	-97.186	23.891	38.877	1.00	37.04
24571	O	HOH	W	410	-54.077	-21.256	87.483	1.00	31.67
24572	O	HOH	W	411	-26.540	-7.257	58.482	1.00	35.63

**REPLACEMENT SHEET**  
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**FIGURE 3 TP**

A	B	C	D	E	F	G	H	I	J
24573	O	HOH	W	412	-59.189	15.902	76.884	1.00	28.37
24574	O	HOH	W	413	-106.052	-19.912	38.113	1.00	37.83
24575	O	HOH	W	414	-38.457	-5.391	64.442	1.00	36.51
24576	O	HOH	W	415	-81.281	-16.478	41.821	1.00	28.20
24577	O	HOH	W	416	-62.592	15.864	83.338	1.00	41.79
24578	O	HOH	W	417	-90.440	-7.959	81.659	1.00	33.84
24579	O	HOH	W	418	-109.276	-4.084	65.347	1.00	45.60
24580	O	HOH	W	419	-69.006	-12.524	47.891	1.00	34.51
24581	O	HOH	W	420	-61.674	13.685	79.885	1.00	22.82
24582	O	HOH	W	421	-77.977	6.047	70.046	1.00	24.17
24583	O	HOH	W	422	-79.914	-36.956	84.165	1.00	44.36
24584	O	HOH	W	423	-75.416	-3.338	43.412	1.00	28.37
24585	O	HOH	W	424	-18.933	12.928	89.742	1.00	25.94
24586	O	HOH	W	425	-94.178	3.382	47.428	1.00	36.17
24587	O	HOH	W	426	-52.330	5.800	71.979	1.00	21.85
24588	O	HOH	W	427	-88.551	-11.856	14.969	1.00	34.68
24589	O	HOH	W	428	-85.645	-17.986	37.895	1.00	33.59
24590	O	HOH	W	429	-132.669	-7.587	47.834	1.00	36.03
24591	O	HOH	W	430	-108.763	-1.321	24.408	1.00	28.53
24592	O	HOH	W	431	-88.217	-9.065	82.661	1.00	30.48
24593	O	HOH	W	432	-56.817	-21.493	13.134	1.00	42.34
24594	O	HOH	W	433	-85.022	5.402	37.016	1.00	28.68
24595	O	HOH	W	434	-73.814	-5.264	66.747	1.00	21.12
24596	O	HOH	W	435	-28.261	13.058	71.895	1.00	30.19
24597	O	HOH	W	436	-28.806	16.105	86.546	1.00	23.64
24598	O	HOH	W	437	-67.417	-16.186	93.767	1.00	23.93
24599	O	HOH	W	438	-48.439	-5.879	87.312	1.00	25.91
24600	O	HOH	W	439	-64.299	-28.634	72.041	1.00	33.74
24601	O	HOH	W	440	-51.532	-5.766	89.351	1.00	34.47
24602	O	HOH	W	441	-93.787	-8.401	22.095	1.00	32.88
24603	O	HOH	W	442	-71.406	3.880	14.002	1.00	33.45
24604	O	HOH	W	443	-98.429	-9.433	30.498	1.00	29.14
24605	O	HOH	W	444	-70.817	-10.368	96.315	1.00	27.94
24606	O	HOH	W	445	-97.517	13.369	26.783	1.00	33.43
24607	O	HOH	W	446	-89.969	-3.182	22.808	1.00	35.56
24608	O	HOH	W	447	-22.398	-7.403	112.204	1.00	36.75
24609	O	HOH	W	448	-54.199	-9.603	88.145	1.00	21.39
24610	O	HOH	W	449	-9.727	-30.093	71.057	1.00	39.70
24611	O	HOH	W	450	-33.216	5.161	88.968	1.00	31.92
24612	O	HOH	W	451	-71.338	7.377	0.357	1.00	56.63
24613	O	HOH	W	452	-65.276	-2.999	91.373	1.00	31.95
24614	O	HOH	W	453	-93.385	9.333	34.303	1.00	30.73
24615	O	HOH	W	454	-88.266	-21.163	92.334	1.00	34.41
24616	O	HOH	W	455	7.452	15.404	87.259	1.00	48.25
24617	O	HOH	W	456	-78.495	-10.661	40.980	1.00	29.54
24618	O	HOH	W	457	-29.277	-0.034	109.864	1.00	41.20
24619	O	HOH	W	458	-84.933	-22.922	78.703	1.00	29.22
24620	O	HOH	W	459	-67.783	-18.157	61.639	1.00	59.22
24621	O	HOH	W	460	-87.054	-3.611	13.871	1.00	35.20
24622	O	HOH	W	461	-106.268	3.822	20.597	1.00	40.04
24623	O	HOH	W	462	-14.798	-27.138	95.307	1.00	42.14



**REPLACEMENT SHEET**  
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**FIGURE 3 TQ**

A	B	C	D	E	F	G	H	I	J
24624	O	HOH	W	463	-106.608	-0.853	14.325	1.00	44.75
24625	O	HOH	W	464	-12.037	19.585	82.638	1.00	34.50
24626	O	HOH	W	465	-9.799	0.222	61.269	1.00	37.92
24627	O	HOH	W	466	-20.392	5.445	93.033	1.00	25.96
24628	O	HOH	W	467	-109.907	10.806	33.777	1.00	42.21
24629	O	HOH	W	468	-72.446	-27.810	77.689	1.00	40.27
24630	O	HOH	W	469	-42.426	-12.230	79.608	1.00	32.72
24631	O	HOH	W	470	-71.414	0.070	15.776	1.00	39.43
24632	O	HOH	W	471	-9.422	11.591	79.064	1.00	45.89
24633	O	HOH	W	472	-99.297	-8.426	65.422	1.00	34.72
24634	O	HOH	W	473	-86.247	-3.322	24.107	1.00	27.75
24635	O	HOH	W	474	-33.420	7.924	76.871	1.00	35.27
24636	O	HOH	W	475	-84.558	-15.993	84.177	1.00	25.38
24637	O	HOH	W	476	-110.008	-7.611	47.215	1.00	32.50
24638	O	HOH	W	477	-87.610	-29.622	80.099	1.00	41.19
24639	O	HOH	W	478	-63.868	15.881	75.751	1.00	32.12
24640	O	HOH	W	479	-102.368	13.617	82.403	1.00	51.21
24641	O	HOH	W	480	-93.676	-8.304	53.421	1.00	22.95
24642	O	HOH	W	481	-65.038	-2.900	54.046	1.00	29.86
24643	O	HOH	W	482	-92.189	-12.262	66.212	1.00	33.84
24644	O	HOH	W	483	-34.202	-6.218	86.179	1.00	26.53
24645	O	HOH	W	484	-96.451	9.670	20.995	1.00	36.39
24646	O	HOH	W	485	-95.374	-17.291	106.485	1.00	52.48
24647	O	HOH	W	486	-73.322	-2.828	74.671	1.00	32.65
24648	O	HOH	W	487	-64.306	10.964	88.902	1.00	36.83
24649	O	HOH	W	488	-51.433	10.267	65.577	1.00	49.74
24650	O	HOH	W	489	-94.223	11.434	50.644	1.00	58.39
24651	O	HOH	W	490	-111.244	11.678	38.858	1.00	40.23
24652	O	HOH	W	491	-84.214	-35.551	92.737	1.00	32.32
24653	O	HOH	W	492	-51.608	-18.135	89.834	1.00	26.53
24654	O	HOH	W	493	-17.440	-25.419	66.465	1.00	49.15
24655	O	HOH	W	494	-39.111	10.312	9.299	1.00	46.57
24656	O	HOH	W	495	-41.021	-0.734	82.999	1.00	20.17
24657	O	HOH	W	496	-104.466	-16.137	89.994	1.00	29.53
24658	O	HOH	W	497	-36.737	-9.547	83.254	1.00	37.47
24659	O	HOH	W	498	-118.554	-7.113	14.480	1.00	47.45
24660	O	HOH	W	499	-70.907	-0.954	72.707	1.00	24.78
24661	O	HOH	W	500	-4.235	14.513	79.624	1.00	45.58
24662	O	HOH	W	501	-90.181	-15.231	97.552	1.00	44.18
24663	O	HOH	W	502	-76.085	-25.892	68.489	1.00	33.89
24664	O	HOH	W	503	-56.259	29.758	0.366	1.00	40.78
24665	O	HOH	W	504	-59.106	-24.485	86.538	1.00	34.68
24666	O	HOH	W	505	-131.342	-22.325	2.291	1.00	51.62
24667	O	HOH	W	506	-42.230	0.815	61.632	1.00	46.95
24668	O	HOH	W	507	-127.706	-12.085	47.862	1.00	37.48
24669	O	HOH	W	508	-114.497	13.233	17.975	1.00	37.97
24670	O	HOH	W	509	-66.706	-11.810	102.856	1.00	31.99
24671	O	HOH	W	510	-90.702	-5.881	10.694	1.00	36.99
24672	O	HOH	W	511	-62.647	-27.901	89.640	1.00	48.60
24673	O	HOH	W	512	-65.472	-1.994	94.134	1.00	32.99
24674	O	HOH	W	513	-112.605	-8.249	41.550	1.00	37.12

**REPLACEMENT SHEET**  
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**FIGURE 3 TR**

A	B	C	D	E	F	G	H	I	J
24675	O	HOH	W	514	-73.619	-33.358	33.610	1.00	41.94
24676	O	HOH	W	515	-110.412	14.693	25.941	1.00	34.88
24677	O	HOH	W	516	-127.324	-18.406	28.670	1.00	37.34
24678	O	HOH	W	517	-92.072	11.787	30.309	1.00	38.67
24679	O	HOH	W	518	-109.533	13.252	42.283	1.00	43.87
24680	O	HOH	W	519	-96.204	-22.107	73.396	1.00	40.68
24681	O	HOH	W	520	-70.511	1.201	-1.688	1.00	43.61
24682	O	HOH	W	521	-85.422	2.630	44.519	1.00	32.34
24683	O	HOH	W	522	-89.796	-10.794	54.215	1.00	26.05
24684	O	HOH	W	523	-52.252	-9.767	-7.150	1.00	49.69
24685	O	HOH	W	524	-106.923	5.441	23.606	1.00	26.09
24686	O	HOH	W	525	-70.347	-0.883	1.599	1.00	33.59
24687	O	HOH	W	526	-13.852	2.537	82.735	1.00	25.71
24688	O	HOH	W	527	-69.051	-23.282	65.079	1.00	57.35
24689	O	HOH	W	528	-15.736	-24.504	64.200	1.00	55.61
24690	O	HOH	W	529	-83.151	-7.369	35.490	1.00	23.48
24691	O	HOH	W	530	-100.263	-10.055	21.332	1.00	29.03
24692	O	HOH	W	531	-84.428	-15.621	36.762	1.00	30.89
24693	O	HOH	W	532	-70.991	-7.964	81.724	1.00	39.87
24694	O	HOH	W	533	-29.394	7.216	88.291	1.00	30.48
24695	O	HOH	W	534	-90.281	11.278	38.196	1.00	37.25
24696	O	HOH	W	535	-94.916	-15.110	93.283	1.00	40.87
24697	O	HOH	W	536	-130.036	2.039	24.303	1.00	38.64
24698	O	HOH	W	537	-89.215	-0.334	55.254	1.00	42.59
24699	O	HOH	W	538	-35.758	-8.081	98.639	1.00	31.72
24700	O	HOH	W	539	-45.965	18.844	63.606	1.00	40.59
24701	O	HOH	W	540	-78.761	1.016	34.849	1.00	41.00
24702	O	HOH	W	541	-36.879	12.264	110.190	1.00	40.17
24703	O	HOH	W	542	-77.805	0.921	26.516	1.00	32.58
24704	O	HOH	W	543	-51.413	-5.972	-11.885	1.00	55.29
24705	O	HOH	W	544	-106.420	2.514	16.392	1.00	36.42
24706	O	HOH	W	545	-23.108	12.851	58.766	1.00	29.95
24707	O	HOH	W	546	-21.284	-34.324	68.964	1.00	34.79
24708	O	HOH	W	547	-115.873	-5.662	40.853	1.00	33.89
24709	O	HOH	W	548	-0.851	-16.521	99.863	1.00	49.84
24710	O	HOH	W	549	-125.713	-12.405	49.897	1.00	29.65
24711	O	HOH	W	550	-3.397	8.350	105.410	1.00	51.21
24712	O	HOH	W	551	-50.077	28.979	29.651	1.00	56.94
24713	O	HOH	W	552	-106.082	-6.054	28.376	1.00	35.22
24714	O	HOH	W	553	-28.271	8.354	109.470	1.00	41.13
24715	O	HOH	W	554	-58.943	16.159	74.242	1.00	37.16
24716	O	HOH	W	555	-110.483	11.853	49.320	1.00	38.28
24717	O	HOH	W	556	-18.014	-2.864	70.527	1.00	38.46
24718	O	HOH	W	557	-99.379	8.025	74.323	1.00	57.48
24719	O	HOH	W	558	-85.516	1.960	94.847	1.00	45.62
24720	O	HOH	W	559	-42.903	-15.679	81.707	1.00	33.93
24721	O	HOH	W	560	-32.359	-5.151	83.993	1.00	35.77
24722	O	HOH	W	561	-124.818	-32.042	29.691	1.00	41.61
24723	O	HOH	W	562	-90.150	-3.668	85.593	1.00	35.28
24724	O	HOH	W	563	-45.572	-2.969	63.207	1.00	35.77
24725	O	HOH	W	564	-96.431	13.752	89.323	1.00	42.58

**REPLACEMENT SHEET**  
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**FIGURE 3 TS**

A	B	C	D	E	F	G	H	I	J
24726	O	HOH	W	565	-11.676	-29.828	73.906	1.00	43.24
24727	O	HOH	W	566	-60.965	-6.210	58.917	1.00	34.35
24728	O	HOH	W	567	-96.938	-2.743	13.419	1.00	46.03
24729	O	HOH	W	568	-80.239	7.394	76.783	1.00	38.39
24730	O	HOH	W	569	-72.035	0.429	75.999	1.00	75.60
24731	O	HOH	W	570	-31.996	2.959	71.230	1.00	35.73
24732	O	HOH	W	571	-44.954	-18.106	77.973	1.00	50.86
24733	O	HOH	W	572	-74.601	-20.462	112.735	1.00	37.33
24734	O	HOH	W	573	-28.559	4.412	25.975	1.00	77.51
24735	O	HOH	W	574	-77.646	3.638	70.347	1.00	23.91
24736	O	HOH	W	575	-86.584	1.876	37.295	1.00	24.00
24737	O	HOH	W	576	-89.287	0.922	78.981	1.00	45.18
24738	O	HOH	W	577	-76.583	-27.839	98.387	1.00	30.42
24739	O	HOH	W	578	-25.542	4.659	45.516	1.00	51.05
24740	O	HOH	W	579	-48.522	-16.842	76.321	1.00	29.73
24741	O	HOH	W	580	-53.049	17.187	76.352	1.00	37.90
24742	O	HOH	W	581	-56.312	23.501	14.352	1.00	44.49
24743	O	HOH	W	582	-30.649	1.419	106.878	1.00	28.92
24744	O	HOH	W	583	-12.526	-25.497	64.032	1.00	52.61
24745	O	HOH	W	584	-28.109	-6.042	112.750	1.00	38.18
24746	O	HOH	W	585	-91.405	1.063	84.825	1.00	51.44
24747	O	HOH	W	586	-32.497	-0.763	55.223	1.00	48.90
24748	O	HOH	W	587	-58.966	-7.611	58.385	1.00	33.24
24749	O	HOH	W	588	-69.798	-31.805	89.201	1.00	36.09
24750	O	HOH	W	589	-56.322	-1.069	89.915	1.00	30.05
24751	O	HOH	W	590	-129.557	-26.903	49.312	1.00	50.67
24752	O	HOH	W	591	-20.910	-34.039	75.885	1.00	36.76
24753	O	HOH	W	592	6.899	4.829	91.810	1.00	41.51
24754	O	HOH	W	593	-29.936	-10.926	86.256	1.00	29.42
24755	O	HOH	W	594	-99.662	-26.933	76.105	1.00	40.22
24756	O	HOH	W	595	-110.859	-21.903	59.586	1.00	51.32
24757	O	HOH	W	596	-46.604	28.337	23.745	1.00	45.45
24758	O	HOH	W	597	-43.405	-9.922	78.639	1.00	28.65
24759	O	HOH	W	598	-110.346	-15.092	42.303	1.00	44.63
24760	O	HOH	W	599	-89.685	-7.210	85.731	1.00	41.15
24761	O	HOH	W	600	-89.542	-3.812	79.240	1.00	35.87
24762	O	HOH	W	601	-39.602	-12.554	95.565	1.00	61.57
24763	O	HOH	W	602	-51.722	6.270	32.500	1.00	43.89
24764	O	HOH	W	603	-126.789	19.632	20.809	1.00	50.98
24765	O	HOH	W	604	-106.338	20.953	20.414	1.00	55.07
24766	O	HOH	W	605	-127.649	-1.043	18.844	1.00	39.90
24767	O	HOH	W	606	-58.955	3.126	98.167	1.00	38.14
24768	O	HOH	W	607	-0.440	16.530	101.154	1.00	45.04
24769	O	HOH	W	608	-84.789	-35.574	95.888	1.00	42.44
24770	O	HOH	W	609	-79.558	9.193	79.177	1.00	42.96
24771	O	HOH	W	610	-146.635	-4.053	40.233	1.00	44.67
24772	O	HOH	W	611	-65.285	2.197	87.705	1.00	41.91
24773	O	HOH	W	612	-119.625	0.329	36.959	1.00	28.70
24774	O	HOH	W	613	-14.215	4.590	62.943	1.00	39.95
24775	O	HOH	W	614	-73.078	19.826	10.249	1.00	61.27
24776	O	HOH	W	615	-90.907	-28.279	41.301	1.00	53.05

**REPLACEMENT SHEET**  
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**FIGURE 3 TT**

A	B	C	D	E	F	G	H	I	J
24777	O	HOH	W	616	-85.475	10.018	30.278	1.00	36.42
24778	O	HOH	W	617	-28.134	4.099	73.726	1.00	34.99
24779	O	HOH	W	618	-50.459	3.930	95.597	1.00	22.62
24780	O	HOH	W	619	-114.113	26.603	29.382	1.00	57.35
24781	O	HOH	W	620	-94.588	-6.059	71.538	1.00	32.20
24782	O	HOH	W	621	-82.752	13.037	62.201	1.00	30.48
24783	O	HOH	W	622	-20.926	-18.909	86.095	1.00	43.77
24784	O	HOH	W	623	-17.970	26.324	71.920	1.00	46.83
24785	O	HOH	W	624	-44.230	-14.175	75.931	1.00	44.88
24786	O	HOH	W	625	-52.806	-16.627	92.395	1.00	42.51
24787	O	HOH	W	626	-28.023	24.410	94.321	1.00	46.13
24788	O	HOH	W	627	-120.609	28.705	21.356	1.00	63.07
24789	O	HOH	W	628	-27.577	3.545	93.373	1.00	32.85
24790	O	HOH	W	629	-26.459	7.138	85.369	1.00	41.44
24791	O	HOH	W	630	0.858	-25.653	75.756	1.00	59.25
24792	O	HOH	W	631	-55.884	-21.067	81.597	1.00	37.94
24793	O	HOH	W	632	-38.896	29.659	75.935	1.00	36.05
24794	O	HOH	W	633	-84.032	-15.701	93.299	1.00	32.55
24795	O	HOH	W	634	-11.874	-8.228	80.656	1.00	35.54
24796	O	HOH	W	635	-75.434	-30.259	103.613	1.00	38.35
24797	O	HOH	W	636	-74.032	-33.431	88.035	1.00	34.09
24798	O	HOH	W	637	-33.404	-22.472	87.965	1.00	40.49
24799	O	HOH	W	638	-26.251	4.032	49.144	1.00	38.80
24800	O	HOH	W	639	-108.473	-41.961	44.645	1.00	66.35
24801	O	HOH	W	640	-53.820	27.469	30.231	1.00	37.74
24802	O	HOH	W	641	-87.240	-17.214	35.785	1.00	38.56
24803	O	HOH	W	642	-100.591	-21.427	22.177	1.00	31.00
24804	O	HOH	W	643	-87.956	-22.906	109.676	1.00	36.03
24805	O	HOH	W	644	-60.617	5.321	92.127	1.00	33.95
24806	O	HOH	W	645	-24.513	5.013	38.231	1.00	47.59
24807	O	HOH	W	646	-85.583	-14.622	9.202	1.00	53.67
24808	O	HOH	W	647	-46.151	23.506	78.086	1.00	36.42
24809	O	HOH	W	648	-15.981	-11.309	72.077	1.00	46.74
24810	O	HOH	W	649	-59.801	-4.749	52.778	1.00	43.98
24811	O	HOH	W	650	-87.978	-33.619	102.487	1.00	63.13
24812	O	HOH	W	651	-11.361	-7.818	97.878	1.00	37.51
24813	O	HOH	W	652	-103.706	-31.490	55.381	1.00	51.71
24814	O	HOH	W	653	-101.710	13.544	98.967	1.00	74.04
24815	O	HOH	W	654	-84.966	-38.282	96.823	1.00	41.06
24816	O	HOH	W	655	-78.472	-6.737	96.586	1.00	40.72
24817	O	HOH	W	656	-135.228	16.826	26.286	1.00	46.08
24818	O	HOH	W	657	-31.731	-0.414	108.386	1.00	30.69
24819	O	HOH	W	658	-103.774	-37.385	41.953	1.00	41.27
24820	O	HOH	W	659	-77.960	-28.996	100.030	1.00	30.02
24821	O	HOH	W	660	-27.317	8.162	38.469	1.00	49.74
24822	O	HOH	W	661	-93.111	-25.539	30.845	1.00	34.26
24823	O	HOH	W	662	-73.120	-23.584	94.120	1.00	31.89
24824	O	HOH	W	663	-19.345	2.573	76.802	1.00	47.99
24825	O	HOH	W	664	-13.696	-9.570	63.137	1.00	47.91
24826	O	HOH	W	665	-50.334	-10.047	-5.032	1.00	55.35
24827	O	HOH	W	666	-128.631	-29.688	43.934	1.00	42.09

**REPLACEMENT SHEET**  
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**FIGURE 3 TU**

A	B	C	D	E	F	G	H	I	J
24828	O	HOH	W	667	1.998	0.931	108.640	1.00	48.09
24829	O	HOH	W	668	-81.286	2.028	48.266	1.00	37.17
24830	O	HOH	W	669	-134.035	1.327	29.428	1.00	34.53
24831	O	HOH	W	670	-73.399	-1.276	-4.487	1.00	46.20
24832	O	HOH	W	671	-78.675	11.945	0.336	1.00	32.94
24833	O	HOH	W	672	-109.777	-18.384	39.041	1.00	40.69
24834	O	HOH	W	673	-84.206	-2.279	2.801	1.00	42.50
24835	O	HOH	W	674	0.084	2.944	107.715	1.00	57.24
24836	O	HOH	W	675	-13.542	-1.107	101.848	1.00	37.88
24837	O	HOH	W	676	-52.682	-4.437	23.976	1.00	42.73
24838	O	HOH	W	677	-43.449	-1.946	40.836	1.00	55.57
24839	O	HOH	W	678	-31.729	-25.134	88.262	1.00	42.24
24840	O	HOH	W	679	-112.636	6.306	54.952	1.00	43.73
24841	O	HOH	W	680	-81.712	-14.940	93.610	1.00	41.18
24842	O	HOH	W	681	-136.487	12.605	39.278	1.00	45.29
24843	O	HOH	W	682	-52.351	-17.893	71.059	1.00	34.40
24844	O	HOH	W	683	-139.268	2.638	26.004	1.00	45.18
24845	O	HOH	W	684	-51.980	-5.968	99.949	1.00	34.09
24846	O	HOH	W	685	-36.644	-14.622	121.379	1.00	39.41
24847	O	HOH	W	686	-66.136	-27.337	92.346	1.00	36.84
24848	O	HOH	W	687	-70.260	3.464	78.817	1.00	35.84
24849	O	HOH	W	688	-115.054	-14.780	38.963	1.00	51.42
24850	O	HOH	W	689	-67.762	9.167	89.828	1.00	41.06
24851	O	HOH	W	690	-76.205	-19.114	45.994	1.00	42.06
24852	O	HOH	W	691	-37.718	-20.124	103.859	1.00	39.08
24853	O	HOH	W	692	-87.393	11.388	31.561	1.00	31.42
24854	O	HOH	W	693	-84.992	17.386	67.200	1.00	39.64
24855	O	HOH	W	694	-8.499	9.237	107.160	1.00	47.35
24856	O	HOH	W	695	-30.407	7.050	79.655	1.00	39.41
24857	O	HOH	W	696	-66.142	18.511	-3.885	1.00	53.83
24858	O	HOH	W	697	-80.694	14.083	113.091	1.00	51.24
24859	O	HOH	W	698	-55.899	10.509	71.595	1.00	29.76
24860	O	HOH	W	699	-11.718	0.478	82.914	1.00	45.46
24861	O	HOH	W	700	-144.057	9.602	12.139	1.00	51.96
24862	O	HOH	W	701	-123.957	-8.933	61.691	1.00	48.53
24863	O	HOH	W	702	-109.921	-40.014	51.188	1.00	51.41
24864	O	HOH	W	703	-92.687	21.608	78.741	1.00	40.56
24865	O	HOH	W	704	-122.013	-5.018	53.612	1.00	38.40
24866	O	HOH	W	705	-101.530	-38.287	46.008	1.00	51.23
24867	O	HOH	W	706	-27.454	-12.186	5.720	1.00	51.47
24868	O	HOH	W	707	-104.938	-16.722	34.407	1.00	48.66
24869	O	HOH	W	708	-26.418	-14.256	81.064	1.00	46.60
24870	O	HOH	W	709	-75.934	-33.496	39.841	1.00	39.00
24871	O	HOH	W	710	-64.836	-17.007	63.963	1.00	43.38
24872	O	HOH	W	711	-95.062	-4.239	89.125	1.00	47.20
24873	O	HOH	W	712	-62.552	-12.299	31.956	1.00	45.49
24874	O	HOH	W	713	-57.917	-9.120	60.550	1.00	32.79
24875	O	HOH	W	714	1.093	-5.090	108.362	1.00	45.91
24876	O	HOH	W	715	-86.973	-15.905	64.055	1.00	22.71
24877	O	HOH	W	716	-15.870	6.898	59.992	1.00	42.80
24878	O	HOH	W	717	-6.846	16.966	94.233	1.00	42.44

**REPLACEMENT SHEET**  
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**FIGURE 3 TV**

A	B	C	D	E	F	G	H	I	J
24879	O	HOH	W	718	-47.295	-3.374	97.326	1.00	34.39
24880	O	HOH	W	719	-18.800	-5.666	55.781	1.00	37.89
24881	O	HOH	W	720	-127.641	11.225	36.633	1.00	51.23
24882	O	HOH	W	721	-38.590	-16.155	110.676	1.00	51.60
24883	O	HOH	W	722	-39.858	-0.432	59.614	1.00	50.04
24884	O	HOH	W	723	-74.314	-15.994	44.707	1.00	55.03
24885	O	HOH	W	724	-9.960	11.652	74.565	1.00	34.71
24886	O	HOH	W	725	-107.173	-17.836	33.511	1.00	38.18
24887	O	HOH	W	726	-99.868	-20.443	112.442	1.00	57.29
24888	O	HOH	W	727	-106.173	-14.260	36.662	1.00	35.53
24889	O	HOH	W	728	-119.801	-15.962	37.710	1.00	45.13
24890	O	HOH	W	729	-61.611	18.551	65.794	1.00	50.39
24891	O	HOH	W	730	0.191	-19.913	75.954	1.00	63.30
24892	O	HOH	W	731	-94.042	-24.147	61.231	1.00	53.28
24893	O	HOH	W	732	-34.003	-4.912	88.410	1.00	42.19
24894	O	HOH	W	733	-77.079	15.127	76.919	1.00	37.67
24895	O	HOH	W	734	-25.059	-32.925	97.348	1.00	45.80
24896	O	HOH	W	735	-76.693	-30.862	101.322	1.00	45.34
24897	O	HOH	W	736	-18.491	5.856	86.005	1.00	40.76
24898	O	HOH	W	737	-108.341	2.644	7.825	1.00	62.16
24899	O	HOH	W	738	-109.993	0.738	91.620	1.00	48.60
24900	O	HOH	W	739	-121.856	1.010	35.985	1.00	27.42
24901	O	HOH	W	740	-92.668	-13.134	63.232	1.00	40.50
24902	O	HOH	W	741	-106.480	1.723	60.044	1.00	49.04
24903	O	HOH	W	742	-95.293	15.288	74.820	1.00	44.19
24904	O	HOH	W	743	-113.061	-15.331	19.125	1.00	51.17
24905	O	HOH	W	744	-22.958	-4.870	113.055	1.00	33.35
24906	O	HOH	W	745	-89.973	-2.565	11.396	1.00	42.40
24907	O	HOH	W	746	-79.987	1.872	22.457	1.00	23.89
24908	O	HOH	W	747	-110.181	-15.573	44.474	1.00	54.44
24909	O	HOH	W	748	-50.713	-20.930	74.519	1.00	52.49
24910	O	HOH	W	749	-73.658	-24.704	68.371	1.00	34.36
24911	O	HOH	W	750	-19.437	-24.855	65.220	1.00	42.91
24912	O	HOH	W	751	-91.197	3.357	89.107	1.00	39.95
24913	O	HOH	W	752	-118.127	-5.114	55.243	1.00	36.74
24914	O	HOH	W	753	-27.171	8.632	70.946	1.00	33.58
24915	O	HOH	W	754	-76.243	-31.139	41.991	1.00	40.07
24916	O	HOH	W	755	-39.397	8.095	56.388	1.00	56.79
24917	O	HOH	W	756	-104.200	-11.227	22.065	1.00	31.85
24918	O	HOH	W	757	-3.554	-9.778	111.146	1.00	32.29
24919	O	HOH	W	758	-74.006	1.863	72.442	1.00	30.98
24920	O	HOH	W	759	-54.405	33.925	16.062	1.00	47.19
24921	O	HOH	W	760	-31.003	12.521	32.845	1.00	60.68
24922	O	HOH	W	761	-78.699	2.560	97.572	1.00	46.62
24923	O	HOH	W	762	-105.963	-25.020	88.669	1.00	46.06
24924	O	HOH	W	763	-137.286	-10.278	49.944	1.00	48.34
24925	O	HOH	W	764	-54.755	10.426	94.112	1.00	25.91
24926	O	HOH	W	765	-18.367	21.230	89.592	1.00	43.75
24927	O	HOH	W	766	-74.917	-2.071	28.904	1.00	52.00
24928	O	HOH	W	767	-75.041	1.291	37.100	1.00	48.59
24929	O	HOH	W	768	-17.797	4.843	115.745	1.00	55.35

**REPLACEMENT SHEET**  
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**FIGURE 3 TW**

A	B	C	D	E	F	G	H	I	J
24930	O	HOH	W	769	-97.728	13.775	22.123	1.00	47.55
24931	O	HOH	W	770	-50.927	-21.661	72.392	1.00	47.05
24932	O	HOH	W	771	-23.468	-5.973	60.726	1.00	38.19
24933	O	HOH	W	772	-123.433	0.675	33.643	1.00	45.22
24934	O	HOH	W	773	-134.913	-4.283	6.958	1.00	66.68
24935	O	HOH	W	774	-127.179	-32.498	40.865	1.00	43.85
24936	O	HOH	W	775	-17.092	16.175	76.945	1.00	45.34
24937	O	HOH	W	776	-56.377	21.256	87.338	1.00	43.00
24938	O	HOH	W	777	-24.439	-41.333	73.696	1.00	37.81
24939	O	HOH	W	778	-73.463	-30.933	86.327	1.00	33.66
24940	O	HOH	W	779	-70.281	-28.784	105.005	1.00	48.94
24941	O	HOH	W	780	-93.115	-0.754	94.056	1.00	38.17
24942	O	HOH	W	781	-31.661	5.608	75.797	1.00	36.73
24943	O	HOH	W	782	-63.429	12.258	19.239	1.00	53.46
24944	O	HOH	W	783	-97.261	18.287	79.139	1.00	43.88
24945	O	HOH	W	784	-71.802	2.252	35.264	1.00	40.62
24946	O	HOH	W	785	-32.081	5.748	112.046	1.00	35.75
24947	O	HOH	W	786	-139.810	-29.449	22.820	1.00	67.64
24948	O	HOH	W	787	-101.321	-18.153	113.123	1.00	44.05
24949	O	HOH	W	788	-40.760	-5.156	64.114	1.00	35.05
24950	O	HOH	W	789	-127.905	6.566	-6.359	1.00	76.46
24951	O	HOH	W	790	-59.533	-26.677	90.322	1.00	34.19
24952	O	HOH	W	791	-91.799	15.065	42.251	1.00	50.36
24953	O	HOH	W	792	-49.855	-0.090	102.999	1.00	40.48
24954	O	HOH	W	793	-52.079	-22.176	70.000	1.00	45.53
24955	O	HOH	W	794	-23.004	-8.624	61.058	1.00	39.84
24956	O	HOH	W	795	-112.487	0.818	34.335	1.00	26.14
24957	O	HOH	W	796	-140.190	-8.344	52.019	1.00	56.96
24958	O	HOH	W	797	-138.528	-21.185	40.068	1.00	40.97
24959	O	HOH	W	798	-49.656	-23.877	72.094	1.00	42.03
24960	O	HOH	W	799	-119.419	-3.074	56.028	1.00	32.43
24961	O	HOH	W	800	-32.508	4.018	77.065	1.00	45.49
24962	O	HOH	W	801	-21.869	-33.688	78.387	1.00	36.26
24963	O	HOH	W	802	-60.786	17.372	73.043	1.00	51.46
24964	O	HOH	W	803	-43.068	22.317	78.859	1.00	33.81
24965	O	HOH	W	804	-35.321	-9.622	96.413	1.00	44.83
24966	O	HOH	W	805	-87.823	-13.792	52.605	1.00	36.21
24967	O	HOH	W	806	-106.590	-15.054	38.915	1.00	45.67
24968	O	HOH	W	807	-75.239	4.136	14.225	1.00	39.44
24969	O	HOH	W	808	-18.177	13.978	67.515	1.00	58.12
24970	O	HOH	W	809	3.469	-3.273	99.678	1.00	51.02
24971	O	HOH	W	810	7.206	16.098	84.307	1.00	51.62
24972	O	HOH	W	811	-134.347	-10.174	26.411	1.00	53.44
24973	O	HOH	W	812	-45.444	8.802	-3.602	1.00	46.81
24974	O	HOH	W	813	-79.673	-23.515	67.461	1.00	41.63
24975	O	HOH	W	814	-45.083	23.312	87.433	1.00	52.94
24976	O	HOH	W	815	-129.550	-20.361	-0.338	1.00	57.31
24977	O	HOH	W	816	-7.865	0.634	71.449	1.00	33.31
24978	O	HOH	W	817	-92.944	4.828	65.491	1.00	70.96
24979	O	HOH	W	818	-108.298	15.720	25.185	1.00	31.68
24980	O	HOH	W	819	-87.642	-1.995	79.866	1.00	35.55

**REPLACEMENT SHEET**  
**10/659,055**

**FIGURE 3 TX**

A	B	C	D	E	F	G	H	I	J
24981	O	HOH	W	820	-53.129	-20.624	68.121	1.00	43.18
24982	O	HOH	W	821	-46.676	8.360	99.471	1.00	53.54
24983	O	HOH	W	822	-82.863	6.721	17.883	1.00	47.89
24984	O	HOH	W	823	-73.495	24.656	60.445	1.00	61.86
24985	O	HOH	W	824	-76.996	10.130	78.452	1.00	41.39
24986	O	HOH	W	825	-72.752	8.722	115.201	1.00	41.56
24987	O	HOH	W	826	-78.867	-18.768	51.533	1.00	39.31
24988	O	HOH	W	827	-64.933	-6.274	14.923	1.00	37.00
24989	O	HOH	W	828	-108.611	-11.029	92.203	1.00	69.08
24990	O	HOH	W	829	-60.555	-17.772	32.874	1.00	36.50
24991	O	HOH	W	830	-32.549	1.337	80.308	1.00	41.41
24992	O	HOH	W	831	-113.710	-25.902	32.716	1.00	49.83
24993	O	HOH	W	832	-73.968	-11.280	65.674	1.00	28.56
24994	O	HOH	W	833	-42.493	-11.248	66.170	1.00	40.32
24995	O	HOH	W	834	-96.113	-9.205	61.778	1.00	46.43
24996	O	HOH	W	835	-65.152	-23.619	25.368	1.00	34.26
24997	O	HOH	W	836	-39.194	-23.222	4.776	1.00	55.34
24998	O	HOH	W	837	-36.238	2.699	9.340	1.00	62.31
24999	O	HOH	W	838	-87.425	10.700	68.799	1.00	50.27
25000	O	HOH	W	839	-66.256	2.049	96.807	1.00	35.47
25001	O	HOH	W	840	-89.474	-22.916	65.158	1.00	45.39
25002	O	HOH	W	841	-27.948	6.269	81.342	1.00	43.67
25003	O	HOH	W	842	-67.887	18.469	72.523	1.00	31.79
25004	O	HOH	W	843	-120.465	7.696	45.684	1.00	38.52
25005	O	HOH	W	844	-71.060	-29.982	95.335	1.00	34.81
25006	O	HOH	W	845	-44.934	-9.421	59.671	1.00	50.92
25007	O	HOH	W	846	-136.026	-17.992	47.402	1.00	44.99
25008	O	HOH	W	847	-107.725	-11.728	40.368	1.00	34.40
25009	O	HOH	W	848	-83.287	2.905	48.594	1.00	47.83
25010	O	HOH	W	849	-95.896	-8.203	11.164	1.00	46.14
25011	O	HOH	W	850	-54.155	0.876	-7.757	1.00	53.90
25012	O	HOH	W	851	-9.851	-32.699	93.749	1.00	51.16
25013	O	HOH	W	852	-104.348	12.704	99.534	1.00	63.26
25014	O	HOH	W	853	-87.422	-4.549	113.517	1.00	48.99
25015	O	HOH	W	854	-2.158	-6.450	64.851	1.00	64.74
25016	O	HOH	W	855	-18.363	6.447	83.250	1.00	46.03
25017	O	HOH	W	856	-7.083	21.878	86.321	1.00	52.99
25018	O	HOH	W	857	-141.370	-13.344	38.226	1.00	47.02
25019	O	HOH	W	858	-18.676	23.769	88.306	1.00	36.60
25020	O	HOH	W	859	-3.232	-4.531	62.613	1.00	53.78
25021	O	HOH	W	860	-57.543	18.385	78.029	1.00	64.06
25022	O	HOH	W	861	-107.309	16.795	22.170	1.00	48.15
25023	O	HOH	W	862	-87.861	16.821	79.674	1.00	41.12
25024	O	HOH	W	863	-85.693	-7.204	77.392	1.00	33.57
25025	O	HOH	W	864	-62.946	10.907	53.948	1.00	46.59
25026	O	HOH	W	865	-36.828	-32.372	89.420	1.00	59.66
25027	O	HOH	W	866	-130.269	-31.081	42.575	1.00	58.44
25028	O	HOH	W	867	-84.428	-28.018	97.755	1.00	45.22
25029	O	HOH	W	868	-96.603	-15.449	95.970	1.00	50.05
25030	O	HOH	W	869	-84.309	-3.507	53.654	1.00	52.40
25031	O	HOH	W	870	-85.468	-9.485	79.996	1.00	34.93



**REPLACEMENT SHEET**  
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**FIGURE 3 TY**

A	B	C	D	E	F	G	H	I	J
25032	O	HOH	W	871	-14.231	-18.199	83.212	1.00	65.94
25033	O	HOH	W	872	-41.548	6.888	12.114	1.00	57.29
25034	O	HOH	W	873	-86.723	-21.494	68.143	1.00	40.01
25035	O	HOH	W	874	-13.321	-0.552	86.509	1.00	46.17
25036	O	HOH	W	875	-102.575	21.776	36.735	1.00	35.79
25037	O	HOH	W	876	-21.013	12.921	96.471	1.00	41.55
25038	O	HOH	W	877	-54.981	-25.534	41.222	1.00	51.79
25039	O	HOH	W	878	-84.913	-24.984	68.610	1.00	38.41
25040	O	HOH	W	879	-11.882	-16.848	84.504	1.00	40.57
25041	O	HOH	W	880	-65.886	-14.938	26.150	1.00	39.74
25042	O	HOH	W	881	-43.445	-13.300	94.973	1.00	47.16
25043	O	HOH	W	882	-86.575	3.908	39.235	1.00	35.06
25044	O	HOH	W	883	-42.935	-14.460	101.664	1.00	46.33
25045	O	HOH	W	884	-102.862	4.225	59.670	1.00	63.42
25046	O	HOH	W	885	-37.621	27.775	64.018	1.00	42.56
25047	O	HOH	W	886	-123.005	4.627	56.211	1.00	44.90
25048	O	HOH	W	887	-44.650	-16.244	101.376	1.00	45.20
25049	O	HOH	W	888	-8.862	20.234	91.644	1.00	38.30
25050	O	HOH	W	889	-123.766	-17.360	38.390	1.00	46.84
25051	O	HOH	W	890	-103.157	-0.399	72.982	1.00	46.81
25052	O	HOH	W	891	-105.777	14.631	20.611	1.00	66.24
25053	O	HOH	W	892	-24.023	9.502	65.466	1.00	46.04
25054	O	HOH	W	893	-28.285	-3.488	113.000	1.00	45.11
25055	O	HOH	W	894	-25.898	2.662	91.394	1.00	37.86
25056	O	HOH	W	895	-76.562	-34.369	33.493	1.00	57.61
25057	O	HOH	W	896	-22.712	3.824	76.835	1.00	44.17
25058	O	HOH	W	897	-48.565	-19.330	89.549	1.00	35.12
25059	O	HOH	W	898	-63.475	-15.102	11.755	1.00	40.72
25060	O	HOH	W	899	-30.645	31.637	80.113	1.00	48.97
25061	O	HOH	W	900	-25.243	4.993	98.133	1.00	36.36
25062	O	HOH	W	901	-87.702	-35.472	100.703	1.00	48.87
25063	O	HOH	W	902	-93.587	-10.177	61.052	1.00	58.57
25064	O	HOH	W	903	-97.756	16.026	29.825	1.00	48.85
25065	O	HOH	W	904	-20.115	-3.404	74.768	1.00	44.90
25066	O	HOH	W	905	-15.016	18.829	99.081	1.00	58.91
25067	O	HOH	W	906	-91.419	-31.458	38.390	1.00	39.28
25068	O	HOH	W	907	-85.162	-30.223	38.252	1.00	60.78
25069	O	HOH	W	908	-31.527	17.665	31.472	1.00	60.01
25070	O	HOH	W	909	-77.299	-14.987	49.080	1.00	41.20
25071	O	HOH	W	910	-70.003	4.960	113.532	1.00	54.43
25072	O	HOH	W	911	-70.496	5.623	116.492	1.00	44.56
25073	O	HOH	W	912	-72.335	7.240	119.566	1.00	52.72
25074	O	HOH	W	913	-67.577	8.642	116.472	1.00	53.27
25075	O	HOH	W	914	-102.314	24.937	12.816	1.00	56.03
25076	O	HOH	W	915	-97.900	28.228	14.950	1.00	44.18
25077	O	HOH	W	916	-110.808	20.471	46.849	1.00	72.10

**REPLACEMENT SHEET**  
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**FIGURE 3 TZ**

A	B	C	D	E	F	G	H	I	J
25078	O	HOH	W	917	-38.511	-5.038	127.327	1.00	64.38
25079	O	HOH	W	918	-110.204	-15.447	-2.899	1.00	67.44
25080	O	HOH	W	919	7.037	-20.430	68.754	1.00	55.24
25081	O	HOH	W	920	-110.374	13.235	102.576	1.00	57.48
25082	O	HOH	W	921	-107.848	12.664	99.863	1.00	52.86
25083	O	HOH	W	922	-105.429	10.964	104.942	1.00	64.95
25084	O	HOH	W	923	-107.566	15.872	103.930	1.00	49.98